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Week at a Glance

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RI, trucker offer joint ratesp. 9

A major breakthrough in truck-rail coordination? That's what some see in the publication of joint rates—in 12 states—by the Rock Island and Consolidated Freightways. This isn't the first rail-truck alliance, but it appears to be the biggest in scope.

New hopper car proposedp. 11

A standardized design developed by the C&O, N&W and Pennsy may bring substantial savings in both initial and maintenance costs.

Replace branch lines with piggyback?p. 13

Some railroad officers see Plan II piggyback as a way to speed branch line service, make it more competitive with truckers. Two operating officers discuss the possibilities on this week's "Current Questions" page.

Turning wheels in place—big time-saverp. 14

The UP at Los Angeles has adapted a wheel-truing machine to turn passenger-car wheels right on the car. It's done with added weight—and the idea saves on labor cost, wheel inventory and out-of-service time.

Moving day on the Seaboardp. 15

Think of it: pick up a railroad's general offices—employees, records, everything—and shift 97 miles without losing a day's work. Not easy, but the Seaboard just did it. Countdown on "Operation Scram" took nearly three years.

Signals for 275 trains a dayp. 17

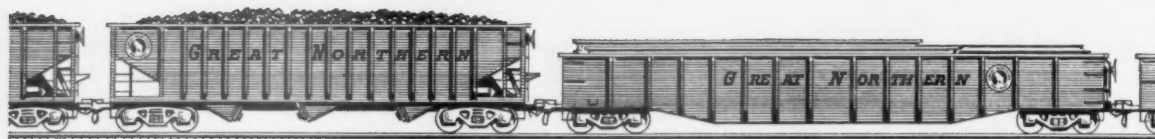
Trains control facing-point switches, new machines consolidate interlockings—these are top items in a big rehabilitation job just finished on a key segment of New York City's subway network. The project cost \$9.5 million, is part of a long-range program for the entire system.

Needed: Freedom for suburban linesp. 25

Northwestern University Transportation Center Chicago study recommends more freedom for privately-owned suburban transportation lines. Fare adjustments, fewer stops, and schedule revisions are cited as areas in which to work.

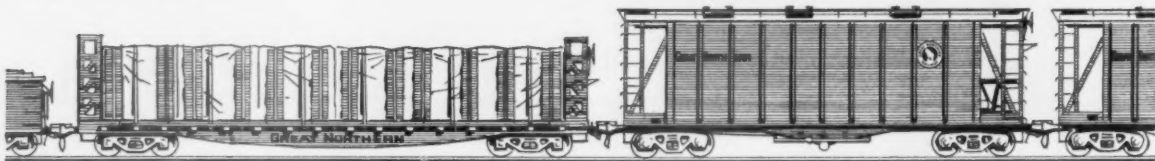
Agency consolidations hit snagsp. 26

A Minnesota court has thrown out M&StL's dualization plan—and the ORT is threatening to strike over C&NW's central agency plan in South Dakota and Iowa.



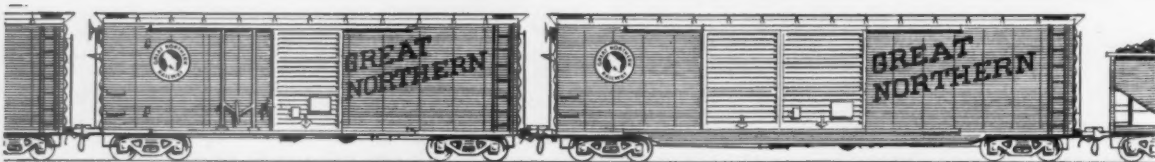
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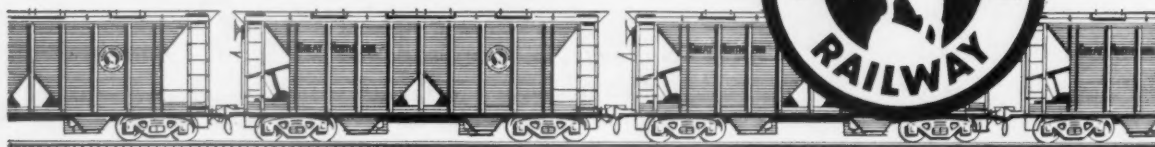


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NEW BOX CARS with double doors to permit easy loading of products of great lineal dimension. 250 of these in 1958.

NEW LOOK in Freight Cars on Great Northern

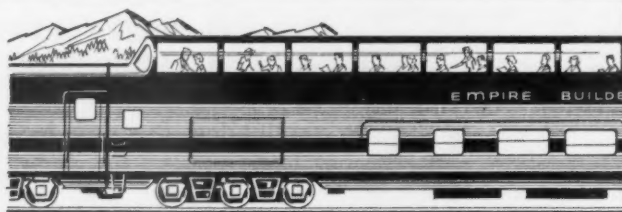
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Week at a Glance CONT.

Current Statistics

| | |
|--|-----------------|
| Operating revenues, six months | |
| 1958 | \$4,534,487,344 |
| 1957 | 5,241,481,677 |
| Operating expenses, six months | |
| 1958 | 3,725,588,356 |
| 1957 | 4,115,976,209 |
| Taxes, six months | |
| 1958 | 428,109,314 |
| 1957 | 542,360,550 |
| Net railway operating income, six months | |
| 1958 | 233,157,574 |
| 1957 | 450,600,455 |
| Net income estimated six months | |
| 1958 | 125,000,000 |
| 1957 | 345,000,000 |
| Average price 20 railroad stocks | |
| Aug. 19, 1958 | 85.86 |
| Aug. 20, 1957 | 88.46 |
| Carloadings revenue freight | |
| Thirty-two wks., 1958 .. | 17,677,560 |
| Thirty-two wks., 1957 .. | 22,029,274 |
| Average daily freight car surplus | |
| Wk. ended Aug. 16, 1958 | 61,145 |
| Wk. ended Aug. 17, 1957 | 12,396 |
| Average daily freight car shortage | |
| Wk. ended Aug. 16, 1958 | 1,493 |
| Wk. ended Aug. 17, 1957 | 3,171 |
| Freight cars on order | |
| August 1, 1957 | 25,994 |
| August 1, 1957 | 85,229 |
| Freight cars delivered | |
| Seven months, 1958 | 31,658 |
| Seven months, 1957 | 59,136 |

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The Action Page—Give traffic people a hand!p. 34

Criticism of the traffic department is apt to rise when business is slack. But neither sales training nor "hard sell" is the whole answer—service and pricing are crucial parts of any sales effort, particularly when customers are as skillful as those who buy railroad service.

Short and Significant

Failure of Shipper-Board forecasts . . .

to anticipate the impact of the recession is pointed up again by the AAR's latest check of estimates against actual car loadings. The check, covering this year's first quarter, shows loadings overestimated by 922,737 cars or 14.7%. That showing followed upon an 11.4% overestimate for last year's fourth quarter, when the recession was getting under way. Twelve of the 13 boards were too optimistic about this year's first quarter. Their overestimates ranged from Pacific Northwest's 1.4% to Allegheny's 24.4%. Best guess was Trans-Missouri-Kansas Board's underestimate of 0.7%.

New Haven now has a \$900,000 subsidy . . .

to keep its Old Colony (Boston) commuter line in operation. Massachusetts Governor Foster Furcolo signed the controversial subsidy bill last week after House-Senate differences were ironed out. The bill insures service for Old Colony commuters until July 1, 1959. The Commonwealth has until that time to find an alternate solution. The first subsidy payment is due Oct. 1.

Concern for eastern rail commuters . . .

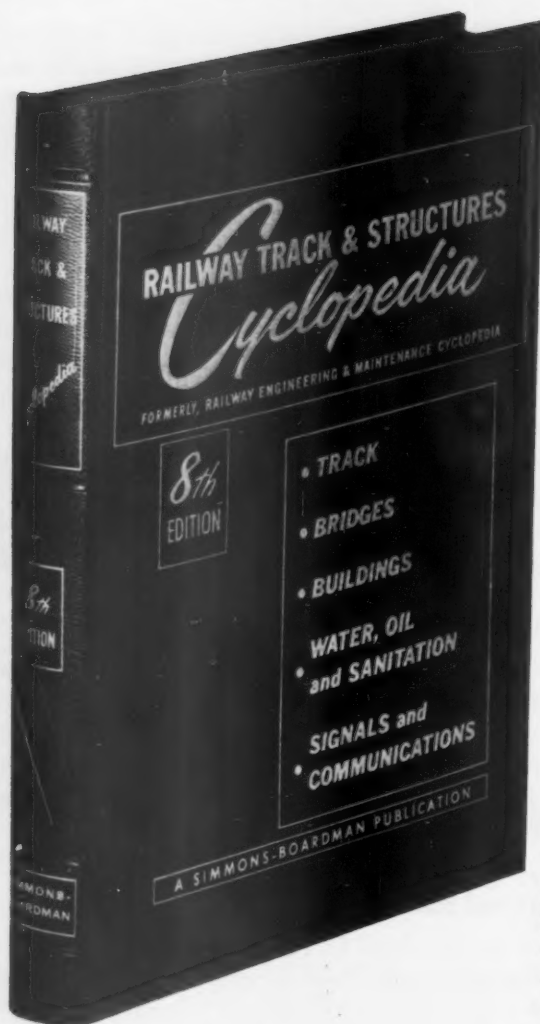
was expressed by the eight U. S. Senators from New York, Pennsylvania, Connecticut and New Jersey in a letter to the chairman of the Senate Interstate and Foreign Commerce Committee. They asked that the federal government "not preside over the liquidation of vital railroad services"—a reference to the Transportation Act of 1958, which gives the ICC broader authority over discontinuance of train and ferry services.

The ICC's transport mobilization staff . . .

will be abolished at the end of this month. Funds to carry on were not included in the commission's current appropriations. Commissioner Tuggle, who has been in charge of the work, says some of the mobilization programs will be on a stand-by basis pending clarification of future plans by the recently-created Office of Defense and Civilian Mobilization.

Average, pay rate is above \$2.45 per hour . . .

for railroad employees. May 1's escalator-clause increase of 3 cents pushed the average for that month up to \$2.457. That reflects straight-time rates of all employees. With officials and staff excluded, it drops about 5 cents—to \$2.408. These figures were reported in the ICC's Transport Economics.



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RI, Trucker Offer Joint Rates

It's not an industry first—but the size and scope of this rail-truck tieup make it significant. What are its prospects? Growth may be slow, but Consolidated Freightways feels the traffic is there and can be developed.

Some time after September 12, the Rock Island and Consolidated Freightways may put into effect what some observers see as a major breakthrough in rail-truck relationships.

The railroad and the truck line have published joint truck-rail rates in 12 states. The rates, published by the Middle West Motor Freight Tariff Bureau, match existing truck charges in the area. They'll apply on truckload or LTL shipments carried in trailers on the highway or on railroad flatcars.

In effect, the setup extends the territory of each carrier into that served by the other. It will permit each to handle shipments originating in or destined for the other's territory.

This is not the first rail-truck tieup on joint rates. Its significance, however, appears to be in the size and scope of the projected operation. A number of roads have in the past ventured into the joint-rate field, but all have had certain limitations on the service:

- Certain Texas lines handle shipments up to 10,000 pounds on a joint rate basis.

- Kansas City Southern-Louisiana & Arkansas have joint motor rates with all motor lines which are parties to motor tariffs in four rate territories. KCS reports its experience with the set-up—and the volume developed—have been satisfactory.

- Chicago & Eastern Illinois has had joint rates with truckers which, in effect, extend the railroad into the automobile centers of Michigan. The operation has been limited—but, it's understood, expansion is planned.

The railroad industry traditionally has taken a dim view of such rail-trucker hookups—a position which dates back to the writing of the motor carrier act in the mid-1930's. At that time, the AAR is reported to have taken a position against through routes and joint rates because they would tend to extend one carrier's territory into that of another.

Now, one industry observer feels, this opinion might break down to a greater extent since Rock Island has jumped into the situation. The alternative possibility: development of a reactionary attitude.

The Rock Island-Consolidated arrangement contemplates each company solicit-

ing business for the other, insofar as this type of traffic is concerned. And that, one observer pointed out, may involve something of a psychological problem which might make growth of the operation slow. Truckers don't like one-way hauls—hence it's possible the trucker will give the railroad traffic only in proportion to the traffic the railroad can give the trucker.

As a starter, the joint rate proposition will link some 50 points in Consolidated territory with 22 served by Rock Island. Rates will apply in Rock Island territory in Illinois, Iowa, Texas, Oklahoma, Tennessee, Nebraska, Minnesota, Arkansas, Kansas and Missouri. Consolidated operates in some 16 states, but only four—Illinois, Wisconsin, Minnesota and North Dakota—are involved in the Rock Island operation.

Orrin Fraley, Consolidated's vice president—traffic, said the truck line views the arrangement as "somewhat of an experiment."

He said, however, that Consolidated hopes to move traffic under the tariff shortly after it becomes effective. He indicated that Consolidated believes (a) that the traffic is there; and (b) that it can be developed without too much difficulty.

As for similar arrangements with other railroads, Mr. Fraley took the position that "it depends on the railroads." If the Rock Island operation is successful, he indicated, Consolidated could expand it to include other points in its territory. He added:

"We're willing to make rates with railroads in all the territory we serve."

Previously, Consolidated entered into



Milwaukee Officials Inspect New PS-1 Box Cars

Milwaukee Road's new 40-ft 6-in. PS-1 box cars feature a combination plug and sliding door giving a 15-ft opening. Car linings are steel and plywood. Kick plates 36 in. high line walls and ends, plywood extends from top of kick plates to roof. Milwaukee officials shown inspecting the new cars at Pull-

man-Standard's Michigan City, Ind., plant, left to right are: V. E. McCoy, chief purchasing officer; W. J. Quinn, president; W. W. Kremer, vice-president; P. J. Weiland, general manager; F. W. Bunce, chief mechanical officer; V. P. Sohn, general superintendent transportation.

piggyback arrangements with several roads in the Far West and Midwest—but in all cases the setup involved more or less conventional substituted service TOFC operation.

According to the trucking line, the Rock Island agreement will work like this: Either carrier can originate traffic. One billing will be made by the originating line and revenues will then be divided on a basis of standard divisions methods.

Rock Island will pay a daily rental for Consolidated trailers while they are in use on the rail line.

Reaction to the Rock Island-Consolidated move was slow in coming. At least one other Chicago-based line, however,

was reported considering entering into a joint service rail-truck arrangement extending beyond the railroad's line. And C&EI is planning to build upon its current joint arrangements.

The RI-CF tieup, however, appears to be the most significant wedding of rail and truck in recent months, linking as it does a trucker with more than 30,000 route miles operated with a Class 1 railroad operating more than 7,500 route miles.

J. L. S. Snead, Jr., president of Consolidated Freightways, has long advocated rail-truck coordination.

"In our opinion," he said recently, "the transportation industry is entering a period

of comparatively swift and sweeping change. It appears to offer to carriers of all modes an opportunity to benefit materially from joint undertakings designed to decrease overall costs and increase earnings per share for the participants . . .

"It is my firm conviction that rail carriers can be particularly advantaged by: publication of joint through rates and routes with motor common carriers; true cooperation with motor carriers in the promulgation of legislation in the national interest regardless of short term competitive problems which obscure that interest; and profit-per-share-minded rather than share-of-traffic-minded review of the rate or pricing structure for transportation in our country."

Watching Washington *with Walter Taft*

• **TRANSPORT STUDY** of the Senate's Interstate Commerce Committee won't get under way until the first of next year. That's the committee's present plan for carrying out the assignment it got in Senate Resolution 303. The resolution, like the Transportation Act of 1958, came out of the Smathers subcommittee's investigation of the "deteriorating railroad situation."

STAFF for the study will include a director and several assistant directors. The committee has received a few applications, but will make no appointments for some time—perhaps not until after election. Meanwhile, all matters arising in connection with the study are being handled by Frank Barton who supervised the committee's staff work on the Transportation Act.

EACH PHASE of the seven-part study will be under the supervision of an assistant director. There will also be a staff pool of attorneys, economists, etc. These, the director will assign and reassign to the assistant directors as required by progress of the various investigations.

THE SEVEN PARTS of the study will include inquiries into: the need for regulation under present conditions, subsidy policies and the desirability of user charges on publicly-provided facilities, ownership of one form of transport by another, federal policy on mergers, the kind and amount of railroad passenger service needed to serve the public interest and national defense, and problems arising from ICC actions granting relief from the long-and-short-haul clause.

ALSO, there is the general provision under which the committee could expand the study. It authorizes inquiry into "additional matters of federal regulation (and exemption therefrom) and federal promotional policies in regard to the various forms of transportation."

• **ICC MEMBERS ARE STILL SAYING** they don't think the Transportation Act of 1958's rate-freedom provision makes any considerable change in the commission's power to deal with competitive-rate proposals. The latest such statement comes from Commissioner Hutchinson. He adds that he is thus not sure that the new act requires substantial revision of the commission's interpretations of its powers in this respect.

HIS OWN VIEW is what the commissioner is stating. But he notes that it's in line with the commission's position that it does not now require carriers to maintain rates at levels solely to protect competing carriers. This brings Mr. Hutchinson to his conclusion that this provision seems to prohibit the commission "from doing only that which it takes the position it does not do anyway."

Loan Rules Set

ICC Section Is Now Ready To Take Rail Applications

The ICC is now in the railroad loan-guaranty business as authorized by the Transportation Act of 1958.

On August 14, two days after President Eisenhower signed the act into law, the commission promulgated regulations for the filing of loan-guaranty applications and waived its competitive-bidding requirements with respect to securities issued in connection with guaranteed loans.

Meanwhile, the commission had set up a new Section of Loans in its Bureau of Finance. The section, headed by George F. Lynch, will handle staff work in connection with loan guarantees (RA, Aug. 18, p. 9). The guaranty provisions are in a new Part V of the Interstate Commerce Act.

The August 14 order setting out regulations for the filing of applications is a document of 17 legal-sized sheets with double-spaced typing. Among other information, an application must explain the purpose of the loan, show the necessity for the guaranty sought, and report the applicant's financial obligations to, or claims against, the federal government.

Information about the lender is also required. It must include statements as to circumstances and negotiations leading to the agreement to make the loan, as to any business relationship between the lender, or any of its officers and directors, and the carrier applicant and any of its officers and directors, and as to any payments by the lender in connection with the proposed loan.

An application must be accompanied by 30 exhibits. Nineteen of them are to supply information about the applicant road, eight about the loan transaction, and three about the lender. Legal documents evidencing the applicant's authority to negotiate the loan must be filed if an application is approved—"before the transaction is closed."

If the transaction involves issuance of securities, they must be approved under

Section 20a. As to that, the August 14 order has this to say:

"The guaranty by the commission of a loan . . . should not be construed as relieving a carrier from complying with applicable provisions of Section 20a . . . in relation to the issuance of securities or the assumption of obligation with respect to securities of others. Any related application filed under said section should be complete in itself. To avoid duplication in filing required information, exhibits included in an application filed . . . under said Section 20a incident to the proposed loan may be incorporated in and made part of the related loan application by reference."

The relief from competitive-bidding requirements came in a report on reconsideration in Ex Parte 158, the 1944 case in which the requirements were prescribed. The report also modified the policy (announced in a 1952 decision) under which the commission will deny applications for relief from the competitive-bidding requirements in cases where negotiations with prospective purchasers are held before the exemption is obtained.

The latter modification is designed to take care of situations wherein a road's negotiations for a guaranteed loan turn up a favorable opportunity to obtain the necessary financing without a guaranty.

"It is obviously in the public interest that there be removed any obstacle to consummation upon reasonable terms of a private loan, without guaranty by us . . . and that carriers not be penalized because of efforts in good faith to make the showing required by us as a necessary prerequisite to a guaranty."

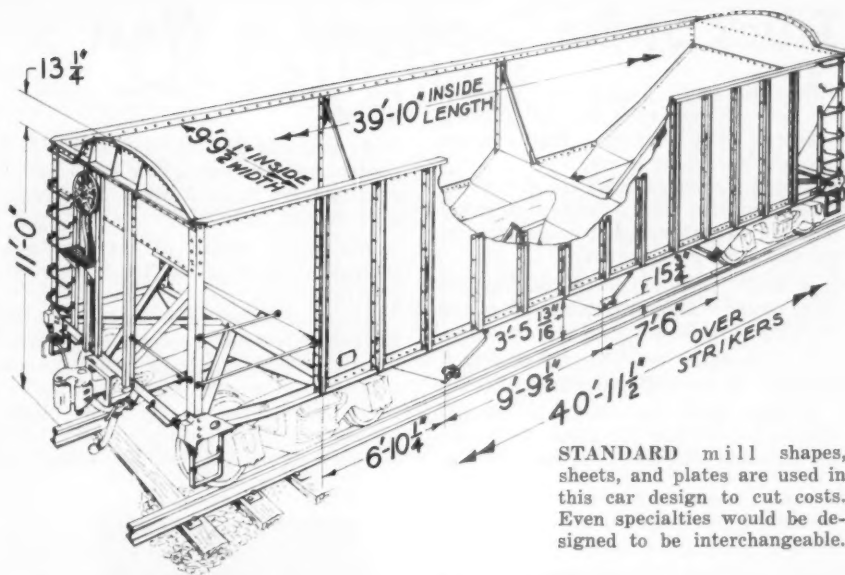
As to the general relief from the competitive-bidding requirements, the report has this to say:

"It is obvious that the application of the . . . requirements to securities which may be issued incident to a loan guaranteed under the provisions of Part V would be impracticable and would result in substantial delays in affording the relief contemplated by that part, which provides that we shall give preference to and expedite the consideration of any application filed thereunder."

The ICC has also issued an order prescribing rules for the filing of notices and petitions under provisions of the new act which give the commission jurisdiction over abandonments of train and ferry services. Those provisions are now in a new Section 13a of the Interstate Commerce Act.

They prescribe the notice procedure when a railroad desires to bring under ICC jurisdiction the proposed abandonment of a train or ferry which operates from a point in one state to a point in another state. The petition routine is the procedure to be employed when the involved train or ferry operates wholly within a single state. (RA, Aug. 18, p. 30.)

This commission order is a document of four legal-sized sheets of single-spaced typing. It calls for considerable information from filing roads.



STANDARD mill shapes, sheets, and plates are used in this car design to cut costs. Even specialties would be designed to be interchangeable.

New Hopper Car Proposed

Substantial savings in construction and maintenance costs expected from new 70-ton hopper car designed jointly by three roads—C&O, N&W, and Pennsy.

A suggested approach to a standardized 70-ton hopper car was announced jointly last week by the Chesapeake & Ohio, Norfolk & Western and the Pennsylvania. The three roads own about 165,000—or 31 per cent—of the hopper cars in the nation.

In the past, the railroads have designed their own individual hopper cars of identical capacity with variations in dimensions. A comparison of present C&O, N&W and PRR cars showed differences from one-eighth inch to about four feet in cars in essentially the same service. These dimension differences are costly. Steel mills producing car parts must make changes in mill schedules to fill orders from the individual railroads. This requirement increases both the time factor and the costs.

The new design is the result of the joint studies of the mechanical and operating departments of the three roads. It has been presented to the railroads and the car builders as one standard design that may be acceptable to all railroads. This new car is similar in appearance to cars now in service. Basic differences are in dimensions and design details. The dimensions of the three-hopper car body components in the new design are standardized. These include side sheets and plates, end and slope sheets, structural shapes in underframe, side posts and center sills. The car is designed to utilize high tensile, copper-bearing or any other steel that may be used interchangeably. The car is of the so-called "extended life" design.

Each railroad will select its own specialties, such as trucks, door frames and

doors, and hand brakes. However, these specialties will be designed to be mechanically interchangeable. This will encourage mass production with a corresponding reduction in costs of patterns, dies and other facilities.

The three roads are building three sample cars, one each in their own shops. This will permit a study of shop practices and manufacturing procedures. Laboratory and service tests will be made of the new car design. The sample cars are scheduled for completion late this summer when the cars will be made available for inspection by shippers and railroads.

Other railroads which have given assistance and indicated interest in the project include the Baltimore & Ohio, Bessemer & Lake Erie, Burlington, Illinois Central, Louisville & Nashville, Nickel Plate, Reading and the Western Maryland. About 65 per cent of U. S. hopper car ownership is represented by all roads which have already shown interest in the design.

The idea of standard cars was discussed as an important phase of a cost-cutting, capacity-building program for U. S. railroads in 1957. Then Norfolk & Western president R. H. Smith (now retired) told the AAR Mechanical Division, "Differences of a fraction of an inch can't make much difference in the effectiveness of the car but they do make a real difference in the cost. . . . Think how much better it would be if the principal owners could agree on a common design so that different manufacturers could build cars of the same size and type for all their customers." In 1958, this idea has become reality.

Truck Strike Continues in West

Quotable traffic figures were few and far between last week as the trucking industry tie-up in the West moved through its second week.

Railroad traffic officers, in the main, agreed that their roads were getting more business. But they had a few important questions still unanswered:

- How much of the added business came to the rails as a direct result of the trucking shutdowns?

- How much could be attributed to a lessening of the business recession?

- How much business was transferred from one pocket to the other—i.e., were the railroads getting box car business that

had been moving in railroad subsidiary trucks?

- Assuming that the tie-up had in fact produced new business, how much would or could be retained when the trucks start moving again?

The spotty nature of the shutdown throughout the West didn't help clear the picture.

Rio Grande, on the eastern end of the tie-up, reported a substantial business upturn, added forces in the freight houses and installed a number of merchandise car schedules. But, as the road pointed out, its trucking subsidiary is closed down—and the railroad itself hasn't been in

the box car merchandise-peddling business for 15-20 years.

Southern Pacific also had more business, but no firm figures. Its embargo situation had eased—with only a temporary embargo on l.c.l. at Los Angeles (including Pacific Electric Lines) in effect early in the week. Piggyback business, however, was another story. Trucking operations at San Francisco and in the Bay Area were near normal, but most of SP's big movement in TOFC involves traffic up and down the coast. And, in the road's viewpoint, there was little point in loading trailers at Frisco which couldn't be delivered at destination.

RRB Benefit Payments Total \$943 Million in Year

The Railroad Retirement Board reached a new high in total disbursements—approximately \$943 million during the fiscal year ended last June 30. Both retirement and unemployment insurance system payments showed substantial increases over the preceding year.

The benefit facts and figures, according to an RRB report:

- **Unemployment insurance system**—benefit payments totaled \$222 million, went to some 439,000 employees. Unemployment benefits, drawn by 312,000 persons, amounted to more than \$169 million; sickness and maternity benefits, paid out to 153,000 persons, totaled more than \$52 million. Some 27,000 employees drew benefits under both categories. The year's disbursements brought the total of benefits paid to date under the program to almost \$1.4 billion (\$962 million in unemployment benefits since July 1939, more than \$432 million in sickness benefits since July 1947).

- **Retirement**—benefit payments (retirement and survivor) totaled \$721 million, went to 798,000 railroad employees and their families. Of the total amount, \$482 million went to 377,000 retired employees, \$72 million to 140,000 wives of retired employees and \$167 million to 289,000 survivors of deceased employees. About 8,000 persons drew both a wife's benefit and a survivor annuity. The \$721 million paid out brought to \$6.3 billion the total amount drawn by beneficiaries since July 1936, when retirement and survivor benefits were first paid.

Wabash: Deluxe Dollar Dinners on the Diner

Wabash passengers can now have dinner in the diner, complete with deluxe silver service and other "appointments and refinements" of dining car service—and it only costs a dollar.

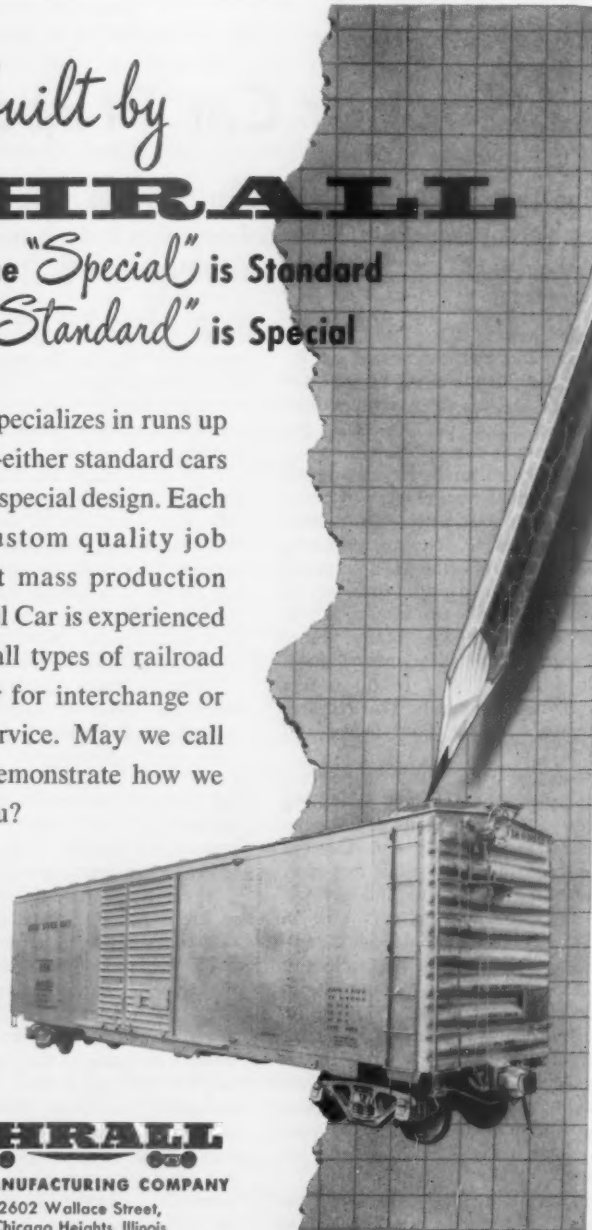
The new "Wabash Silver Dollar Dinner" will be available on all trains offering diner service, except the jointly-operated (Wabash-Union Pacific) "City of St. Louis." The meal will be served both at noon and evening.

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To What Extent Can Piggyback Replace Branch Line Operations?

The person framing this week's question thought it might be possible that a branch line could be operated on a reduced train schedule for picking up and setting off heavy materials, with regular service in smaller lots handled over the highway

on Plan 2 piggyback. He also suggested that substituted piggyback service on a branch might tend to attract new business, for example, fresh fruits and vegetables in refrigerated trailers, that is now moving over the highways. . .G.C.R.

"Can Be Effective in Generating Traffic" ...

"The question 'To what extent can piggyback replace branch line operations?' is an interesting one. The example given is one that has already been put into practice by some eastern railroads with which I am acquainted. The question, I believe, can be expanded to include not only branch line operations, but operations on the main track intermediate to main terminals where local freight service and delays are involved in the same manner as they are involved in branch line or destinations.

"To illustrate my point, the Black & Decker Manufacturing Company is located at Hampstead, Md., on our B&H subdivision. We service this plant through piggyback service and they are able to load a trailer as late as 4:00 p.m., following which the trailer is moved over the highway by a contract trucker to Hanover, Pa., a distance of about 25 miles, at which point it is loaded on a flat car for further movement to Chicago or points west. This car is then picked up by a symbol freight train originating at York, which in turn connects with our Alphabet route, second morning service, on to Chicago, via the NKP. This service actually replaced motor carrier competition and was new business in every sense of the word. It would not have been

economically feasible to have altered the local freight service to accommodate these particular shipments which move about twice a week. To have altered our local freight service would have disrupted our service to other local industries on this line, and this particular movement would not justify the addition of another local crew.

"Thus, substituting piggyback service for either branch line origins or destinations, as well as main line intermediate locations, will attract new business, or possibly preserve existing business. The substitute piggyback service can be provided by a contract trucker who already has rights to operate in the territory involved for the railroad, or by obtaining those operating rights by the railroad itself. This requirement in itself would not alter the attractiveness of the overall method.

"The question as to what extent it could replace branch line operations would be difficult to generalize, but would vary depending upon the nature of the branch line operations. To illustrate, we have one branch line which involves the movement of about 90 per cent coal and 10 per cent various commodities, including lumber. Obviously, to provide competitive service for a specific movement in such a territory

would be practically impossible from an economic standpoint and piggyback could provide an answer by a movement in that territory over the highway. On the other hand, some branch line operations can be very effectively keyed with the main line, and in such instances, piggyback in itself would not offer any significant improvement in the service.

"Summing it up, the movement over the highway of piggyback shipments in many instances can provide the service necessary to make the railroad competitive and in such cases can be a very effective means of retaining or generating traffic. It can, in some instances, enable branch line train operations to be reduced and still provide improved service for those industries on that branch line which require fast movement.

"Some railroads have already, through substitute service in connection with their l.c.l. traffic, accomplished exactly the same objective of reducing their local freight branch line service and providing the l.c.l. service over the highway with the end result of a reduction in operating costs and an improvement in the service where speed was important to the customer or consignee."—G. M. Leilich, vice president-operations, Western Maryland.

"Depends on Circumstances" ...

"I think that there are some opportunities wherein piggyback might replace relatively unimportant branch line operations.

"Insofar as such an arrangement attracting new business, of course, as a generality it is possible depending as usual in individual cases upon circumstances. It would appear that with the present relatively limited arrangements in this area on refrigerated piggyback traffic, the question

is somewhat academic."—H. C. Munson, vice-president and general manager, W. P.

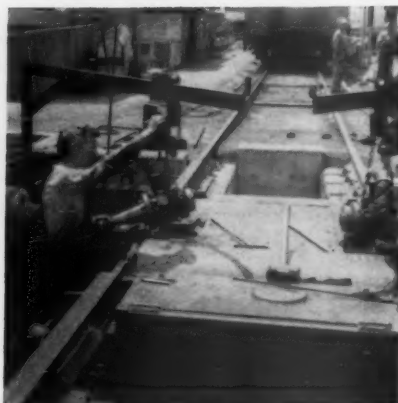
Additional answers to this question will be discussed in our next column, two weeks from now. Another question we'll be discussing in the near future is whether rail traffic men work at a disadvantage in selling rail shipments because time allowed for payment of rail bills is generally 96 hours instead of seven days trucks allow. . .G.C.R.

CONDUCTED by G. C. RANDALL, district manager, Car Service Division (ret.), Association of American Railroads, this column runs in frequent weekly issues of this paper, and is devoted to authoritative answers to questions on transportation department matters. Questions on subjects concerning other departments will not be considered unless they have a direct bearing on transportation functions. Readers are invited to submit questions, and, when so inclined, letters agreeing or disagreeing with our answers. Communications should be addressed to Question and Answer Editor, Railway Age, 30 Church Street, New York 7.

Turning Wheels in Place...



ROLLING INTO POSITION, this head end passenger car will get wheels reconditioned without removal from car.



LIGHT JIB CRANES help operators change cutters. Truing machine averages 12 pairs of wheels a day.

No longer do Union Pacific passenger-car wheels at Los Angeles have to be removed from under the car to have the tread and flange contours restored. They are turned in place by a wheel-truing machine installed at the Los Angeles shops.

Savings are made in several ways. The machine eliminates time and labor in (1) dropping wheels; (2) transportation to a wheel shop; (3) turning operations at the shop, and (4) movement of wheels back to the car or to wheel storage tracks. It reduces labor costs, out-of-service time and, to a large extent, the inventory of passenger-car wheels.

The machine operates two shifts with two operators, one for each side. Production averages 12 pairs of wheels per day, seven days a week.

...Is a Big Time-Saver on the UP

This Standard Railway Equipment machine is believed to be the first used almost exclusively for passenger-car-wheel work, although it has been widely used in reconditioning diesel locomotive wheels without removal from under the units.

At Los Angeles, the only other work performed is the turning of wheels under diesel switchers used locally.

The principal change required to adapt the machine for passenger-car wheels is to provide weight equivalent to the heavier weight common on diesel locomotive wheels. This is done by tying hinged 3-in.

by 14-in. hydraulic cylinders into the machine foundation at four points under the truck position so that piston-rod extensions and chain connections can be made to the truck equalizers. Push-button control of the pistons brings an additional pressure of about 3,000 lb on each pair of wheels as they are being machined.

In operation, the passenger car with one or more pairs of wheels to be retrued is spotted. Extra weight is applied through equalizer bars and journal boxes to the pair of wheels to be machined. The wheels are positioned on small, grooved flange

drive wheels over the carbide inserted-tooth milling cutters. The machine heads are brought up and a maximum cut of .350 in. taken, if necessary, off the flange; .175 in. off the tread.

The actual time for milling around the circumference of a 40-in. wheel is 18 min. In UP experience, one cut is occasionally sufficient; two cuts are generally necessary, and three cuts required in a few cases of exceptional wear or large flat spots.

Flat spots up to 5 in. long and .157 in. deep on a 40-in. wheel are taken out in one cut, but this work comprises only about one per cent of the wheels retrued. Ninety per cent of the wheels are machined because of tread wear, and nine per cent because of shell-outs or other wheel defects.

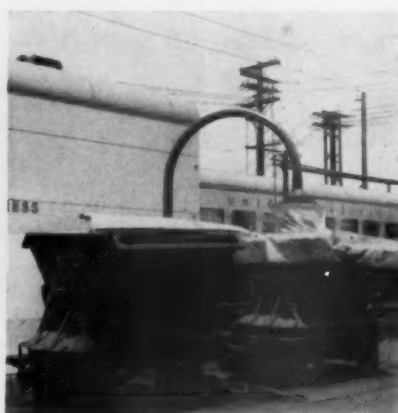
One unusual feature of the wheel truing machine installation at Los Angeles shops is the highly effective method of chip disposal.

Metal chips fall into a chute from which a strong blast of air from a blower moves them through a 4-in. conveyor pipe up and over into a canvas-hooded chip car. This arrangement prevents any possibility of small chips dropping to the surrounding ground area where they might constitute a hazard, or require subsequent sweeping up.

Two chip cars, about 36 in. wide by 72 in. long, are used so that one will always be available.



OPERATOR DISCUSSES setup with Mechanical Superintendent E. L. Neeley (left), UP, Salt Lake City.



HOODED CARS catch metal chips from cutters. Air blast moves chips through conveyor pipe, eliminates possible hazards.



THIS NORFOLK BUILDING formerly housed the Seaboard's executive departments and its communications nerve center. Movers emptied the six floors occupied by the railroad between 6 p.m. Friday, Aug. 15, and 1 p.m. Sunday, Aug. 17.



THIS PORTSMOUTH BUILDING was the home of the Seaboard's general accounting offices, which were moved the weekend of Aug. 22. The railroad also moved offices from two other buildings.

The Seaboard Moves— In Two Busy Weekends

Old-timers said it couldn't be done. The Seaboard said it had to be done. Here's how a railroad packed up and moved its general offices—lock, stock and typewriter—with no interruption in work.

How does a railroad whisk 700 employees, its operations nerve center, and 4,000,000 pounds of office paraphernalia 97 miles up the line—without losing a single day's work?

The Seaboard Air Line began looking for the answer three years ago. That was when the Seaboard decided to gather its general offices—then scattered through four buildings in the twin Tidewater cities of Norfolk and Portsmouth, Va.—under a single roof in Richmond.

Seaboard President John W. Smith announced the impending move in September 1955. He broke ground for the new \$6,000,000 headquarters building on June 29, 1956. But planning for "Operation Scram" had started long before the groundbreaking.

To Marvin Myers—office assistant to Seaboard Chief Engineer Thomas B. Hutcheson—fell the task of working out

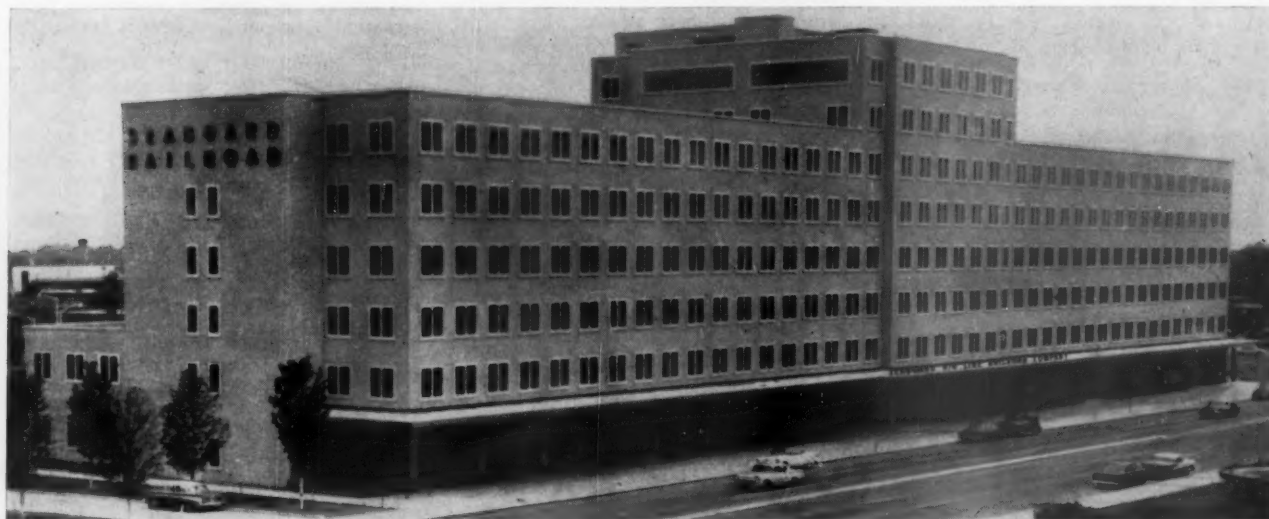
details of the move. He quickly found out that it would take an army of 300 men 15 normal working days to pack up and move the Seaboard's general offices.

After huddling with a professional mover of corporations—Neptune Storage, Inc., of New Rochelle, N.Y.—Mr. Myers decided that 15 days' work could be crammed into two weekends.

Old-timers around the Seaboard said it couldn't be done. Marvin Myers said it had to be done.

He furnished the movers blueprints and floor plans of both the new and old buildings. A Seaboard committee—one man from each department—worked closely with Mr. Myers. He in turn spent months working out every detail with the movers. A few weeks before the move, Neptune sent men to begin tagging every one of the thousands of items scheduled for transfer.

Moving of the Norfolk offices was set



NEW RICHMOND HEADQUARTERS has gathered Seaboard's general offices under single roof for first time in any living

employee's memory. The firm of Doyle & Russell constructed the building, which has 315,000 square feet of floor space.

for the weekend of Aug. 15. The Portsmouth offices would follow on the weekend of Aug. 22.

Here's what happened when "moving day" finally arrived:

● **Friday, Aug. 15, 12 noon**—Close to 500 Seaboard employees begin clearing their desks; throughout the afternoon they melt into the traffic of Norfolk's main artery, Granby Street—for the last time. Their own weekend's work is cut out for them: getting families settled in new homes in Richmond. (The railroad agreed to pay for moving all household goods—plus auto transportation for 700 families, or roughly 2,500 persons. Moving the families was expected to account for the biggest single expense in the move. Estimated total cost: something under \$200,000.)

● **Aug. 15, 4 p.m.**—The Seaboard's transportation desk in Norfolk—keeping tab on all train movements over the 4,000-mile system—begins relaying final reports by telephone to a duplicate transportation desk in Richmond.

● **Aug. 15, 5 p.m.**—The Norfolk transportation desk closes for the day—and for all time. From now on all train movement reports go to Richmond. Great care has been taken to insure no break in communications during the move—no interruption in the orderly flow of Seaboard trains.

● **Aug. 15, 6 p.m.**—The tempo quickens as the first wave of 300 movers—including 58 experts flown down from New Rochelle—invades the general offices at Granby and Plume Streets. Their "order of march" has been timed with military precision. First on their list: President Smith's offices on the seventh floor.

● **Aug. 15, 8 p.m.**—The executive offices have been cleared. Now the movers tackle their biggest single job of the op-

eration; packing up and moving the freight traffic department. This will take 10 hours. Heavy equipment is now traveling slowly down into the blocked street below on elevators erected outside the building. The first lot of 35,000 cartons of records begins to move.

The work goes on through the night—first, under the eyes of a curious throng of passers-by. Later, in the pre-dawn hours, the only spectator is a policeman walking his beat.

● **Saturday, Aug. 16, 6 a.m.**—The freight traffic department is clear. The movers begin packing up and loading the passenger traffic and mail department. Time allotted: four hours and 45 minutes.

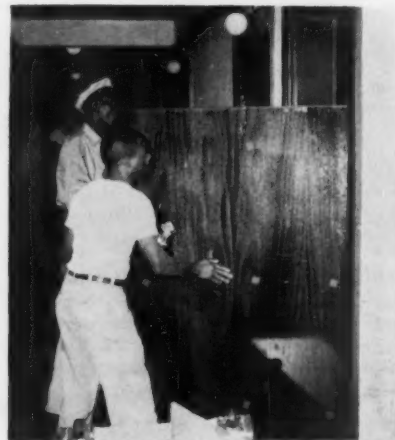
By now, the 100 miles of highways between Norfolk and Richmond are humming under the wheels of 35 highway vans. They will make 300 round trips before this gigantic move is completed. A longer move would have been undertaken by rail. But the highway vans make it to Richmond in three hours—and it would take nearly that long, a railroad spokesman points out, merely to load the freight into box cars. Also, the rail route from Norfolk to Richmond would be circuitous. Piggybacking was out of the question; the Seaboard has no trailer-on-flatcar equipment. (However, some 10 carloads of records will follow by rail).

● **Aug. 16**—The relentless march of the movers through the Norfolk building continues. By nightfall, they have packed up and lowered to the street the desks, files, records and miscellaneous equipment of five more departments: operating, mechanical, personnel, public relations and transportation. Before midnight, the purchasing, pass bureau and finance departments have been cleared.

(Continued on page 24)



FIRST LOT OF FURNITURE leaving Norfolk is rolled through seventh floor corridor to elevators as "Operation Scram" gets under way a few minutes after 6 p.m. Aug. 15.



TWO HOURS LATER the seventh floor, containing top executive offices, has been emptied. Next on list: freight traffic department.



MASTERMINDING the move: Chief Engineer Hutcheson (seated) and aide, Marvin Myers.

Moved to Richmond. . .

- General Offices
- 700 Employees
- \$6,000,000 Payroll

Left in Tidewater. . .

- Portsmouth shops
- 475 Employees
- \$2,000,000 Payroll



FIRST FURNITURE arrives in Richmond at 11 p.m.—five hours after the loading began.

Signals for 275 Trains a Day

The New York Transit Authority has just spent \$9.5 million to modernize signaling on a key segment of its subway system.

The New York City Transit Authority has just completed an extensive modernization job (\$9.5 million) on its Flushing line, a key 10-mile artery in the city's busy rapid transit system.

At least two parts of this now-completed work—a train identification system ("Identra") and the consolidation of interlockings—represent big changes from existing practice on rapid transit railroads. Overall, the signaling is the ultimate in moving dense traffic by wayside indications.

This line, with its west terminal in Times Square and its eastern terminal at Flushing, is one of the busier sections of the subway. As many as 275 trains a day move in and out of Times Square. Traffic is heavy, particularly during rush hours when trains operate on as close as 90-second headway.

Geography of the line (see map) is not complex—the two-track line runs east from Times Square and goes beneath the East River to Hunters Point avenue in Queens; here it rises to an elevated structure and continues 1.3 miles to Rawson street. At this point the elevated line becomes three-track and extends to Flushing. Just prior to this eastern terminal the line dips underground again.

Handling the heavy traffic—predominantly inbound in the morning and outbound at night—is further complicated by the nature of the line. It's actually a long shuttle, with limited train storage space at the dead ended terminals. The additional trains, required in the morning and evening rush periods, are fed from Corona yard in Queens.

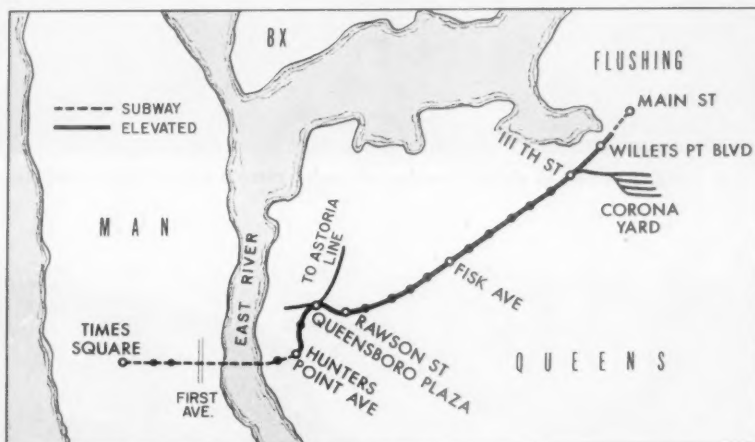
The controlling problem for the system is to obtain safe movement of trains at minimum intervals and maximum speeds. This must be accomplished with existing track facilities and a minimum of traffic handling personnel.

Against this background the Transit Authority has embarked on an extensive modernization program. One of the first major steps in the program was rehabilitation of the Flushing line.

Big Step Toward Automation

The electronic train identification system is used not only for the selective control of facing point switches, but also for announcing the class of trains at stations.

This "Identra" system, as it is called,



Busy Line Links Times Square, Queens

High traffic density on this 10-mile line requires train operation on as little as 90-second headway. Dead ended terminals make segment a long shuttle.

permits trains to route themselves either way through Rawson street, the point where the double-track line becomes three-track.

Each train is equipped with an inert loop mounted on the first car. The loop has a four-position tuning capacitor. Capacitor positions are Off, Local, Express and No Passenger. At selected locations, a wayside case is equipped with a pair of coils mounted high enough to place them opposite the train-carried coil at a distance of approximately 18 in. Inside the case is electronic equipment which effectively senses the position of the tuning capacitor on the train-carried loop and energizes a relay representing the particular identity.

The relay starts a chain in the selection network to position switches and clear signals. The route is held until the train passes the home signal as well as a cancellation wayside-coil. The relay which is energized as a result of the train passing this coil, de-energizes the relays in the route selection network.

Either of two wayside identification units at Rawson street may call for the route; both are located in approach to the interlocking signals. The first one will normally call for the route. This wayside case is located to give ample time for a route to clear before the train comes to the automatic signal marked "A" in the accompanying track diagram. This was done so the train will normally pass the automatic

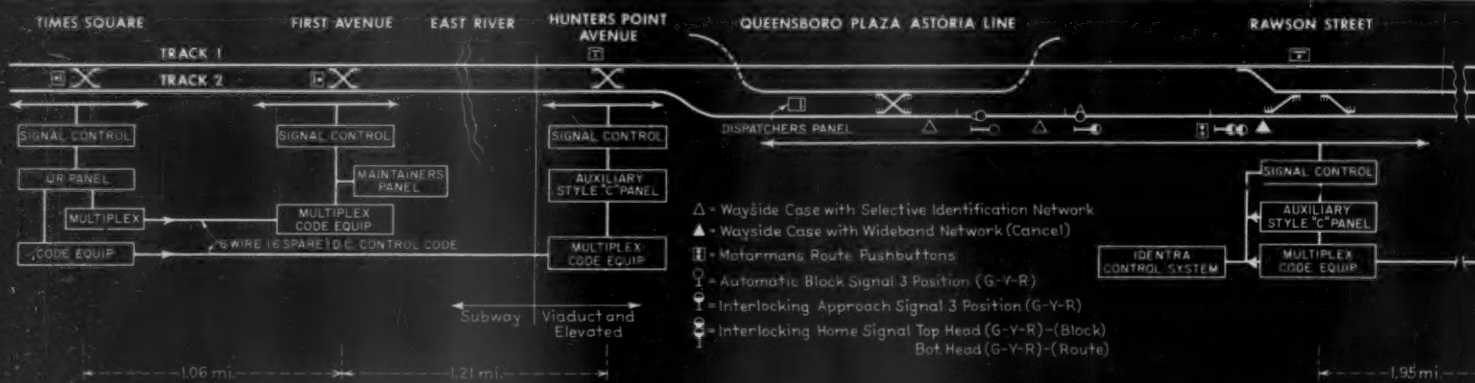
signal when it displays a green aspect. Should the route not be available, the train may pass the automatic signal displaying a yellow and thus clear the route at the second wayside coil. The automatic selection circuits prevent a second train calling for a route before the first train has accepted and cancelled its route.

The "Identra" system is used to the commuters' benefit, too. Identification signs and warning bells are provided in waiting rooms. Wayside coils are mounted on their cases in the approach to stations; as the trains pass they announce their class of service by means of signs.

New Control Panels

The first phase of the overall modernization job, in point of time, was installation of the signaling from Times Square to Hunters Point. This included a new "UR" route type control machine at Times Square. The panel has track occupancy indications and controls for all interlocking signals as far as Queensboro Plaza station, a distance of 3.1 miles.

This Times Square machine controls one diamond crossover and associated signals by direct wire. Two other diamond crossovers, at First avenue and Hunters Point, are controlled by separate code systems. At First avenue, in addition, there is a spotlight type panel for the maintainer. It provides indications within the interlocking limits, switch position indicators,

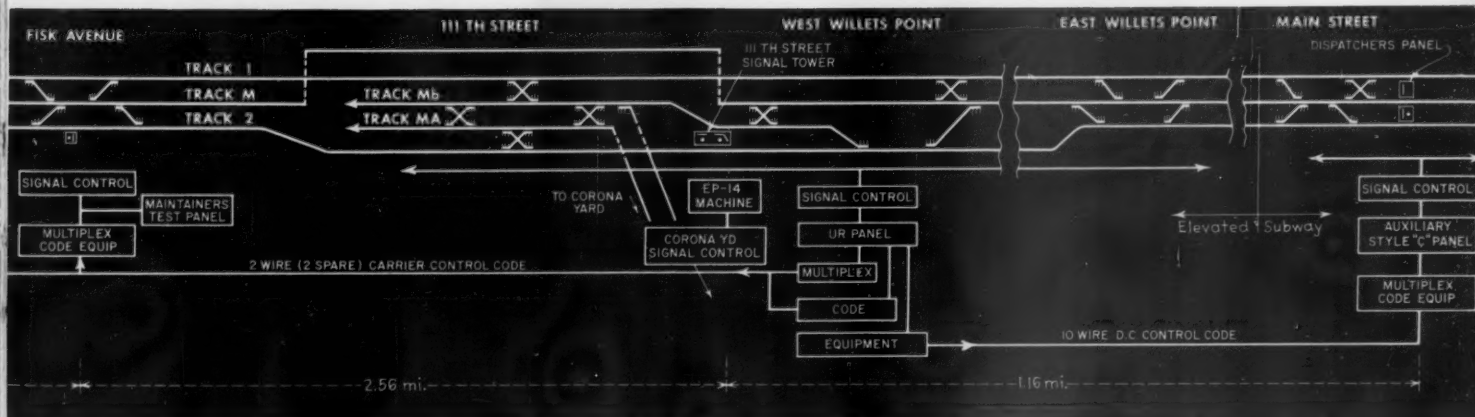


SINGLE LINE DIAGRAM shows location of main, remote control interlockings.



DETACHABLE train-carried inert coil with a four position tuning capacitor. These units are mounted on both ends of each train used on the 10-mile line. The motorman makes his selection according to class of service before leaving the terminal. Resonant frequencies of the coil-capacitor combination are 100, 110 and 120 kilocycles.

MANHATTAN-BOUND local train about to initiate a call for the trailing point switch at Rawson street. The wayside case is one of sixty installed on the Flushing line. Each case contains network for route selection and cancellation as well as for illuminating identification indicators on station platforms and dispatcher panels.



a master lever key lock, and auxiliary switch pushbuttons for testing.

At Hunters Point a miniature lever machine provides auxiliary control in case of emergency. This auxiliary control machine duplicates all the signal controls which the Times Square panel normally performs.

Seven Interlockings Consolidated

The second important phase of the modernization was in the Queens area, where, in an expanded tower at 111th street, the control of seven interlockings was consolidated into one new route type control machine. The seven interlockings are at Queensboro Plaza, Rawson street, Fisk avenue, 111th street, Willets Point East and West, and Main street. The 111th street, Willets Point East and West plants are controlled by direct wire, the remaining remote plants are Multiplex Code controlled. The overall consolidated territory controlled by this plant is approximately 6.5 miles.

Auxiliary control machines, similar to the one at Hunters Point, are provided at Rawson street and Main street. At Fisk avenue a maintainers test panel is provided, similar to the one at First avenue.

Automatic Train Control

Signal controls on the Flushing line are based on the "single block overlap" system. In this system a signal will not change from the red aspect until the rear end of a train has passed the second signal in advance. Signals are located to provide braking distance plus a safety factor in each block.

Protection is enforced by an automatic train stop or trip arm at every interlocking and automatic signal. When the signal is displaying a red aspect the trip arm is in the raised position. If the motorman fails to observe the red signal the trip arm will come in contact with the "trip-cock" on the train. This "trip-cock"

is mounted on each car at a level where it will encounter the wayside trip arm when it is in raised position, and cause an emergency brake application. When the signal displays a yellow or green aspect the trip arm is down and will not engage the "trip-cock" on the train.

Other innovations used by the transit system to provide maximum safety while moving trains as fast as possible include the use of "closing-in" controls on signal layouts at stations. This system permits cutting back the controls of signals entering the stations in order to bring an approaching train as close as possible to the station and permit it to enter as the leaving train moves out.

Wherever excessively high speeds could be attained, a system of normally danger speed control (Grade Time) signals are used. Steep down grades, sharp curves and long runs where the attainable speed may be dangerous, or where riding comfort is to be considered, are examples of where the G.T. signals are applied. Restricted speed is enforced by time relays started over track relays dropped by the approaching train.

In order to provide flexibility in case of circuit failure or train trouble the new automatic and interlocking approach signals are provided with an automatic key-by feature. At these locations the insulated joint is about 8 to 10 ft in approach to the signal and the automatic trip arm. The motorman coming upon a red signal must come to a halt, then proceed slowly across the insulated joint. This will cause the trip arm to be lowered to clear before it engages the trip-cock on the train. He may then proceed at reduced speed according to rules.

Complete Track Indication Coverage

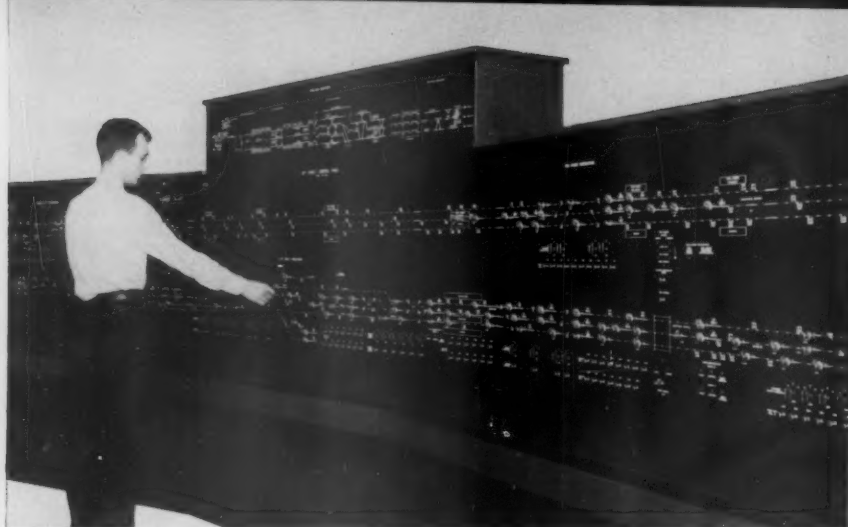
Pin-point location of every train on the line is provided on the UR control machines and dispatcher indicator panels. The track indications are received from



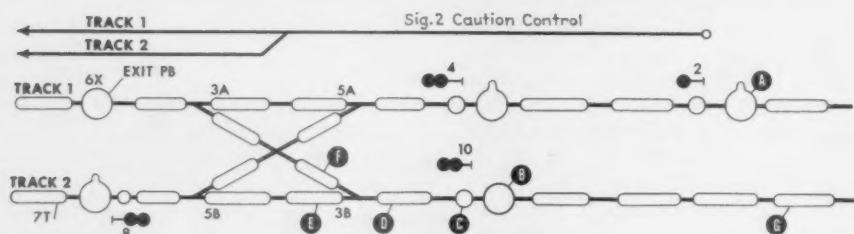
HOME SIGNAL has electro-pneumatic stop mechanism mounted between rails. Trip arm is painted white (bottom, center).

three sources: (1) From track repeater relays in the tower when the territory to be covered is within the direct wire control. (2) From the high speed Multiplex Code for indications within remote controlled interlockings. This system is also used for the control of these interlockings. (3) From a two-wire Simplex code system for indications between interlockings. This equipment was used for the first time on this installation. It is called the Type LM Form 519A Coded Indication System.

The Union Switch & Signal Division of Westinghouse Air Brake Company designed, installed and supplied the major items of signal equipment. Watson-Flagg Engineering Company, New York City, subcontractor, installed the equipment, wire and cable. Wire and cable were furnished by the Okonite Company.



CONTROL MACHINE at 111th street is UR route type, consolidates seven interlockings. Typical line-of-light panel indications are shown below.



- A Interlocking Approach Signal Control P.B. with Fleet Feature
- B Home Signal Control (without Fleet Feature) also Acts as Exit P.B.
- C Signal Indication Lamp
- D Route Lamp: Also Acts as Entrance and Exit Indicator
- E Route Lamp: Also Illuminates White for Switch Position Indication
- F Route Lamp: Also Illuminates White for Reverse Switch Position Indication; Also Flashes Red for Switch Transit Indication
- G Line-of-Light Unit: Indicates Red for Track Occupancy

How Control Machines Work

The new "line-of-light" route type control machines installed at Times Square and 111th street contain some unusual features when compared to machines on other railroads.

Route pushbuttons are located on the panel in the center of the track line. The buttons control the entrance and exit points for all routes. Small round lights (spot lights), located in the track line adjacent to each route button, are provided for each interlocking signal.

The track diagram has oblong plexiglass lenses which are normally dark, but which will light white when a route is established within the interlocking, red when the track is occupied.

In order to initiate a route the operator pushes a button at the desired entrance point. The signal indication light will show red and all the available exit points will be shown by a white light in the track diagram. Pushing a button at

the selected exit will cause all other exit lights to go dark and indicate the entrance with a white light. All switches in the route will travel to their selected position at the same time. While in transit the route lights over the switch will flash red at a 75-operations per minute rate. Once the switches in the route are lined and locked, a continuous white line of lights will be displayed from the entrance to the exit. The clearing of the entrance signal will be shown by its indication light going yellow.

Normally, a home signal will not clear again after a route has been used by a train. If two or more following trains are to use the same route, special "fleet-ing" control can be set up. This calls for pushing buttons for entrance and exit in the normal manner, then going back and turning the button used for entrance in the direction of train movement. Fleet-ing a signal will allow it to clear auto-

matically as a train moves out of its control limits.

To cancel a signal manually, the route button corresponding to the signal is pulled. The signal indication light next to the button will go dark, the white route lights will remain as long as approach or time locking is in effect.

Call-On aspects are provided on all home signals. This aspect—Red, Red, Yellow—may be used in the event of a track circuit failure, to allow closing in on a preceding train or when a slow speed move is desired.

Because of overlap controls, interlocking approach signals are lever controlled. They are cleared by pressing their associated route button; since they require no switch selection, no exit need be pushed. If the control line of the signal requires switches to be positioned, it will be done automatically when the route button is pushed. Once the required switches have indicated, white route lights will show from the approach signal to the next signal in advance.

For example (at left), if switch 3 were reverse, pushing the route button at signal 2 will automatically control crossover 3 to normal. The route will light white from signal 2 to signal 4. To inform the towerman that the switch is locked if he pushes any route button that would initiate a conflicting move, route lights over the switch will flash white. In the above example, pushing the route button at signal 10 will flash 3 switch, also signal 2 indication light will flash at this time to indicate that this signal has the switch locked. The flashing will persist until a non-conflicting route is set up, from 10 to 8, or signal 2 is cancelled.

The flashing indication is also used to inform the towerman of an overlap lock condition on a facing-point switch. The control line for signal 2 includes 7 track circuit when crossover 5 is reversed. If signal 2 is clear over switch 3 and 5 normal, and 7 track occupied, allowing switch 5 to go reverse would cause signal 2 to go red, the automatic trip arm to come up, possibly in the face of an on-coming train. This is prevented by holding the switch locked normal, until the train moves off 7 track circuit, or signal 2 is cancelled. To remind the operator when this condition exists, the locked switch, 5 in this case, will flash white when the button at signal 4 is pushed. Since the switch is not locked by the immediate detector, preconditioning is allowed. Pressing the button at signal 4 will cause exit lights to appear at signals 6 and 8; if the exit is selected at 8, the selection relays will allow the switch to be "called" reverse. However, switch 5 will not move until track circuit 7 is unoccupied.

Dollar figures are stated in thousands: i.e., with last three digits omitted.)

MONTH OF JUNE AND SIX MONTHS OF CALENDAR YEAR 1958

| Average mileage operated per period | Name of Road | Operating | | | | Revenues (in mil.) | | | | Maint. Way and Structures | | | | Deprec. | | | | Net Railway operating | | | |
|---|---------------------------------------|-----------|--------|-----------|---------|--------------------|--------|--------|--------|---------------------------|--------|---------|---------|---------|--------|----------------------------------|------------------------------|-----------------------|--------|-------|--|
| | | Freight | Pass. | Operating | | Total | | Total | | Total | | Total | | Total | | Railway operating accruals | Net operation accruals | | | | |
| | | | | 1957 | 1958 | 1957 | 1958 | 1957 | 1958 | 1957 | 1958 | 1957 | 1958 | 1957 | 1958 | | | | | | |
| 171 | Akron, Canton & Youngstown..... | 2,418 | ..... | 428 | 529 | 71 | 6 | 52 | 74 | 18 | 36 | 141 | 326 | 388 | 56 | 78 | 28 | 42 | | | |
| 214 | Alabama, Tennessee & Northern..... | 2,266 | ..... | 2,268 | 3,572 | 50 | 49 | 36 | 315 | 15 | 236 | 84 | 2,055 | 2,377 | 55.9 | 75.8 | 338 | 270 | | | |
| 13 | Albany, New York & Saratoga..... | 1,467 | ..... | 2,036 | 2,972 | 297 | 34 | 168 | 18 | 418 | 6 | 76 | 1,147 | 1,159 | 120 | 130 | 10 | 53 | | | |
| 13,192 | Atchison, Topeka & Santa Fe..... | 2,931,176 | 18,343 | 272,889 | 338,866 | 43,465 | 4,460 | 56,311 | 61,242 | 13,316 | 7,866 | 106,938 | 212,716 | 40,488 | 79.5 | 46.6 | 13,437 | 277 | | | |
| 81 | Atlanta & St. Andrews Bay..... | 2,281 | ..... | 226 | 33 | 43 | 3 | 26 | 27 | 8 | 70 | 157 | 167 | 167 | 41.5 | 80 | 85 | 85 | | | |
| 221 | Atlanta & West Point..... | 2,197 | ..... | 2,284 | 2,37 | 28 | 27 | 160 | 185 | 14 | 17 | 140 | 264 | 279 | 88.6 | 94 | 134 | 597 | | | |
| 93 | Western of Alabama..... | 1,339 | 141 | 1,603 | 2,177 | 263 | 43 | 316 | 372 | 86 | 193 | 1,749 | 1,613 | 1,749 | 89.5 | 98.7 | 190 | 110 | | | |
| 133 | ..... | 1,215 | 225 | 1,200 | 2,44 | 43 | 5 | 446 | 468 | 119 | 19 | 2,266 | 2,066 | 2,284 | 84.8 | 87.7 | 49 | 136 | | | |
| 133 | ..... | 1,613 | 132 | 2,641 | 276 | 317 | 53 | 343 | 404 | 115 | 8 | 1,691 | 1,691 | 1,899 | 83.8 | 281 | 136 | 135 | | | |
| 5,387 | Atlantic Coast Line..... | 10,693 | 1,100 | 12,875 | 13,914 | 1,824 | 2,117 | 2,271 | 2,995 | 679 | 446 | 4,985 | 10,200 | 11,456 | 84.5 | 88.7 | 1,875 | 813 | | | |
| 5,294 | Charleston & Western Carolina..... | 62,329 | 8,240 | 76,483 | 87,068 | 12,698 | 1,183 | 14,040 | 17,443 | 4,929 | 2,772 | 30,763 | 62,889 | 70,297 | 91.8 | 80 | 3,662 | 577 | | | |
| 243 | Baltimore & Ohio..... | 3,487 | ..... | 3,781 | 3,709 | 663 | 34 | 466 | 587 | 176 | 128 | 1,026 | 2,417 | 2,771 | 67.7 | 74.7 | 1,154 | 436 | | | |
| 5,935 | ..... | 19,264 | 7,710 | 32,666 | 35,712 | 4,644 | 4,657 | 5,342 | 6,712 | 1,463 | 5,646 | 13,834 | 25,235 | 31,166 | 77.4 | 78.5 | 2,939 | 3,609 | | | |
| 5,942 | ..... | 167,774 | 17,378 | 235,839 | 18,969 | 26,782 | 3,213 | 31,893 | 44,223 | 6,085 | 5,666 | 136,385 | 183,191 | 183,191 | 86.3 | 78.5 | 36,994 | 13,212 | | | |
| 29 | Staten Island Rapid Transit..... | 211 | 68 | 288 | 264 | 58 | 12 | 37 | 34 | 2 | 149 | 280 | 281 | 281 | 97.3 | 106.4 | 8 | 45 | | | |
| 29 | Bangor & Aroostook..... | 1,251 | 352 | 1,712 | 1,636 | 321 | 69 | 224 | 225 | 11 | 12 | 924 | 1,675 | 1,720 | 97.8 | 105.1 | 37 | 271 | | | |
| 602 | Birmingham & Nashville..... | 8,888 | 427 | 9,940 | 9,940 | 2,140 | 1,926 | 311 | 1,734 | 1,652 | 283 | 301 | 1,741 | 1,959 | 78.7 | 73.9 | 1,982 | 739 | | | |
| 268 | Bessemer & Lake Erie..... | 2,052 | ..... | 2,669 | 3,055 | 294 | 282 | 49 | 434 | 652 | 43 | 461 | 1,431 | 1,697 | 68.7 | 52.3 | 72 | 1,532 | | | |
| 208 | ..... | 6,235 | ..... | 6,329 | 13,656 | 1,476 | 1,359 | 3,166 | 4,059 | 839 | 258 | 2,401 | 8,154 | 9,274 | 128.8 | 73.5 | 1,216 | 1,938 | | | |
| 1,571 | Boston & Maine..... | 4,767 | 783 | 6,284 | 6,744 | 792 | 973 | 144 | 828 | 783 | 298 | 152 | 2,810 | 4,900 | 5,414 | 80.8 | 80.3 | 1,234 | 432 | | |
| 234 | Canadian Pacific Lines in Maine..... | 4,076 | 39 | 4,475 | 4,338 | 115 | 126 | 13 | 658 | 77 | 17 | 9 | 1,347 | 2,359 | 35,161 | 84.3 | 70.9 | 2,889 | 912 | | |
| 264 | Carolina & Northwestern..... | 4,240 | 267 | 4,243 | 4,204 | 579 | 56 | 1,107 | 722 | 21 | 5 | 68 | 1,176 | 1,649 | 68.8 | 55.1 | 74 | 19 | | | |
| 284 | | 1,524 | | 1,562 | 3,183 | 295 | 348 | 47 | 177 | 121 | 114 | 31 | 460 | 1,056 | 310 | 67.8 | 56.1 | 115 | 203 | | |
| 1,763 | Central of Georgia..... | 19,005 | 712 | 21,442 | 22,168 | 3,928 | 498 | 58 | 622 | 613 | 192 | 179 | 1,449 | 3,862 | 2,889 | 86.6 | 79.8 | 393 | 249 | | |
| 1,763 | | 19,005 | 712 | 21,442 | 22,168 | 3,928 | 498 | 58 | 622 | 613 | 192 | 179 | 1,449 | 3,862 | 2,889 | 86.6 | 79.8 | 393 | 249 | | |
| 600 | Central New Jersey..... | 3,659 | 562 | 4,439 | 5,092 | 454 | 569 | 123 | 713 | 865 | 55 | 2,407 | 3,609 | 3,917 | 81.3 | 76.9 | 830 | 425 | | | |
| 210 | Central Vermont..... | 21,310 | 3,042 | 26,130 | 29,866 | 3,172 | 3,165 | 717 | 4,367 | 816 | 21 | 12,272 | 2,018 | 23,638 | 109.3 | 82.6 | 3,279 | 52 | | | |
| 340 | ..... | 4,854 | 306 | 5,269 | 5,814 | 1,471 | 1,497 | 166 | 656 | 588 | 111 | 2,319 | 4,693 | 4,862 | 89.1 | 83.6 | 576 | 303 | | | |
| 5,131 | Chesapeake & Ohio..... | 26,639 | 642 | 28,892 | 37,995 | 2,880 | 4,517 | 447 | 4,599 | 5,700 | 1,977 | 10,136 | 20,134 | 24,841 | 67.7 | 65.4 | 8,746 | 3,762 | | | |
| 5,131 | ..... | 26,639 | 642 | 28,892 | 37,995 | 2,880 | 4,517 | 447 | 4,599 | 5,700 | 1,977 | 10,136 | 20,134 | 24,841 | 67.7 | 65.4 | 8,746 | 3,762 | | | |
| 129 | Chicago & Eastern Illinois..... | 2,291 | 306 | 2,694 | 3,034 | 285 | 287 | 35,828 | 35,828 | 1,243 | 4,852 | 62,925 | 125,518 | 147,870 | 78.1 | 68.6 | 41,401 | 21,212 | | | |
| 862 | | 14,822 | 945 | 17,261 | 19,378 | 2,184 | 2,785 | 192 | 2,933 | 3,197 | 906 | 865 | 7,114 | 14,120 | 14,944 | 82.1 | 77.1 | 3,081 | 1,207 | | |
| 121 | Chicago & Illinois Midland..... | 3,063 | ..... | 3,163 | 4,135 | 216 | 262 | 52 | 638 | 610 | 145 | 843 | 2,143 | 2,254 | 47.6 | 54.3 | 385 | 2,057 | | | |
| 9,327 | Chicago & North Western..... | 14,385 | 1,663 | 17,886 | 17,586 | 2,448 | 3,175 | 281 | 2,815 | 2,924 | 979 | 7,399 | 14,447 | 15,256 | 83.2 | 87.9 | 3,139 | 1,238 | | | |
| 6,872 | ..... | 17,780 | 1,927 | 18,710 | 17,985 | 3,977 | 3,513 | 3,584 | 3,653 | 3,004 | 4,870 | 10,359 | 17,356 | 17,356 | 81.8 | 80.3 | 3,451 | 1,555 | | | |
| 8,760 | Chicago, Burlington & Quincy..... | 97,986 | 8,840 | 119,624 | 121,697 | 17,578 | 2,476 | 23,428 | 22,441 | 5,300 | 3,763 | 48,664 | 96,901 | 96,366 | 81.0 | 88.8 | 22,543 | 10,247 | | | |
| 293 | ..... | 1,723 | ..... | 1,745 | 1,693 | 1,857 | 1,463 | 1,749 | 1,758 | 3,740 | 3,321 | 40,320 | 78,533 | 40,320 | 78.8 | 78.4 | 21,181 | 8,452 | | | |
| 1,469 | Chicago Great Western..... | 2,609 | 13 | 2,891 | 3,201 | 476 | 449 | 442 | 444 | 332 | 757 | 915 | 1,993 | 1,258 | 71.3 | 66.7 | 662 | 283 | | | |
| 1,469 | ..... | 2,609 | 13 | 2,891 | 3,201 | 476 | 449 | 442 | 444 | 332 | 757 | 915 | 1,993 | 1,258 | 71.3 | 66.7 | 662 | 283 | | | |
| 10,590 | Chic., Milw., St. Paul & Pacific..... | 95,536 | 1,534 | 20,079 | 20,999 | 3,465 | 4,448 | 428 | 3,134 | 3,495 | 911 | 7,007 | 16,148 | 18,224 | 86.6 | 90.7 | 3,880 | 1,527 | | | |
| 10,590 | ..... | 95,536 | 1,534 | 20,079 | 20,999 | 3,465 | 4,448 | 428 | 3,134 | 3,495 | 911 | 7,007 | 16,148 | 18,224 | 86.6 | 90.7 | 3,880 | 1,527 | | | |
| 6,872 | Chicago, Rock Island & Pacific..... | 7,598 | 816 | 7,846 | 9,714 | 102,515 | 11,693 | 13,857 | 13,857 | 17,439 | 17,582 | 3,740 | 69 | 40,320 | 78,533 | 40,320 | 78.8 | 78.4 | 21,181 | 8,452 | |
| 2,155 | | 3,937 | | 3,937 | 3,937 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | | |
| 2,155 | | 3,937 | | 3,937 | 3,937 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | 1,766 | | |
| 6,872 | Colorado & Southern..... | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,083 | 78.1 | 86.4 | 3,784 | 1,225 | | |
| 6,872 | ..... | 716 | 1,121 | 75 | 1,319 | 1,138 | 1,185 | 248 | 39 | 188 | 213 | 65 | 547 | 1,030 | 1,08 | | | | | | |

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; *i. e.*, with last three digits omitted)

MONTH OF JUNE AND SIX MONTHS OF CALENDAR YEAR 1958

| Name of Road | Average mileage operated during period | Operating Revenues | | Operating Expenses | | Total | Trans- portation | Total | Operating | Net from operation | Railway operating | NetRailway operating |
|-------------------------------------|--|--------------------|-----------|--------------------|---------|---------|------------------|---------|-----------|--------------------|-------------------|----------------------|
| | | Freight | Pass. | Total (inc. misc.) | 1957 | 1958 | 1957 | 1958 | 1957 | 1958 | 1957 | 1958 |
| Elgin, Joliet & Eastern..... | June | 2,395 | ... | 3,231 | 4,640 | 244 | 243 | 788 | 981 | 120 | 744 | 67.7 |
| ... | 6 mos. | 15,249 | ... | 19,804 | 29,527 | 1,508 | 1,508 | 4,835 | 5,343 | 648 | 4,687 | 33.8 |
| ... | 6 mos. | 2,267 | ... | 3,229 | 72,738 | 8,997 | 8,997 | 13,774 | 15,444 | 1,647 | 13,797 | 94.5 |
| Florida East Coast..... | June | 1,905 | 3,131 | 2,400 | 3,559 | 221 | 221 | 447 | 463 | 117 | 343 | 82.6 |
| ... | 6 mos. | 14,476 | 2,751 | 18,765 | 21,781 | 2,477 | 2,477 | 3,779 | 4,932 | 583 | 7,018 | 75.7 |
| Georgia Railroad..... | June | 552 | 14 | 649 | 701 | 82 | 111 | 135 | 35 | 40 | 290 | 55.7 |
| ... | 6 mos. | 3,232 | 88 | 3,812 | 4,263 | 510 | 743 | 662 | 206 | 242 | 1,741 | 91.8 |
| Georgia & Florida..... | June | 332 | ... | 1,233 | 1,249 | 491 | 432 | 22 | 215 | 246 | 81 | 85.7 |
| ... | 6 mos. | 3,625 | 214 | 4,125 | 4,681 | 769 | 686 | 982 | 978 | 91 | 1,022 | 87.8 |
| Grand Trunk Western..... | June | 24,139 | 1,158 | 27,361 | 36,531 | 4,176 | 4,086 | 350 | 5,217 | 5,733 | 541 | 87.8 |
| ... | 6 mos. | 8,274 | 18,744 | 21,489 | 26,937 | 3,497 | 3,932 | 3,780 | 4,853 | 472 | 7,126 | 78.5 |
| Green Bay & Western..... | June | 234 | ... | 2,358 | 338 | 79 | 75 | 4 | 47 | 36 | 111 | 79.3 |
| ... | 6 mos. | 2,757 | ... | 2,444 | 2,509 | 90 | 90 | 294 | 294 | 294 | 1,284 | 74 |
| Gulf Mobile & Ohio..... | June | 3,467 | 1,560 | 38,880 | 42,424 | 5,435 | 5,435 | 8,362 | 8,737 | 1,766 | 13,530 | 81.8 |
| ... | 6 mos. | 17,091 | 3,912 | 21,712 | 23,105 | 3,895 | 3,895 | 4,340 | 5,952 | 3,749 | 17,111 | 78.9 |
| Illinois Central..... | June | 6,497 | 104,864 | 1,022 | 144,993 | 17,917 | 25,972 | 2,492 | 135 | 284 | 87,446 | 78.9 |
| ... | 6 mos. | 334 | 4,708 | 131 | 5,555 | 1,257 | 78 | 839 | 184 | 266 | 2,117 | 83.0 |
| Kansas City Southern..... | June | 891 | 10,979 | 433 | 21,419 | 23,005 | 1,478 | 1,922 | 2,860 | 636 | 5,811 | 57.3 |
| ... | 6 mos. | 327 | 397 | ... | 398 | 377 | 67 | 73 | 30 | 28 | 12 | 68.8 |
| Kansas, Oklahoma & Gulf..... | June | 327 | ... | 2,937 | 2,937 | 71 | 407 | 11 | 181 | 171 | 161 | 52.9 |
| ... | 6 mos. | 1,088 | ... | 1,211 | 1,987 | 337 | 319 | 68 | 437 | 489 | 128 | 74.1 |
| Lake Superior & Ishpeming..... | June | 180 | ... | 1,269 | ... | 35 | 39 | 2 | 44 | 8 | 104 | 63.6 |
| ... | 6 mos. | 1,692 | ... | 1,693 | 1,836 | 203 | 221 | 227 | 223 | 223 | 1,252 | 75.6 |
| Lehigh & Hudson River..... | June | 177 | ... | 618 | ... | 182 | 181 | 6 | 123 | 179 | 518 | 83.7 |
| ... | 6 mos. | 1,137 | ... | 3,153 | 3,791 | 376 | 525 | 30 | 799 | 146 | 1,240 | 89.4 |
| Lehigh Valley..... | June | 1,138 | ... | 3,139 | 28,267 | 3,932 | 4,128 | 609 | 1,689 | 1,188 | 15,943 | 87.2 |
| ... | 6 mos. | 350 | ... | 1,192 | 4,443 | 5,988 | 728 | 92 | 1,058 | 1,033 | 2,795 | 83.9 |
| Long Island..... | June | 6,162 | 25,931 | 33,146 | 32,528 | 4,856 | 4,714 | 607 | 6,347 | 1,009 | 17,052 | 87.7 |
| ... | 6 mos. | 746 | ... | 1,644 | 2,131 | 196 | 198 | 18 | 285 | 333 | 640 | 64.8 |
| Louisiana & Arkansas..... | June | 746 | ... | 11,137 | 13,486 | 1,281 | 1,323 | 152 | 1,806 | 1,944 | 4,030 | 83.1 |
| ... | 6 mos. | 5,697 | ... | 18,439 | 19,281 | 2,564 | 2,264 | 326 | 3,542 | 4,536 | 15,911 | 88.8 |
| Louisville & Nashville..... | June | 944 | ... | 1,433 | 2,134 | 167 | 178 | 13 | 237 | 385 | 457 | 80.7 |
| ... | 6 mos. | 1,218 | ... | 3,94 | 14,680 | 2,628 | 2,628 | 165 | 2,379 | 2,523 | 5,067 | 76.4 |
| Maine Central..... | June | 1,371 | ... | 1,793 | 2,793 | 279 | 272 | 261 | 260 | 50 | 432 | 75.7 |
| ... | 6 mos. | 1,391 | ... | 16,399 | 11,455 | 1,631 | 1,622 | 183 | 1,747 | 1,700 | 8,762 | 75.4 |
| Minneapolis & St. Louis..... | June | 77 | ... | 374 | ... | 21 | 100 | 3 | 32 | 38 | 176 | 81.4 |
| ... | 6 mos. | 2,051 | ... | 2,194 | 2,451 | 125 | 1,084 | 14 | 236 | 212 | 1,365 | 85.7 |
| Minn., St. Paul & S. S. Marie..... | June | 3,222 | ... | 18,795 | 19,744 | 2,767 | 4,388 | 293 | 4,159 | 4,371 | 18,994 | 81.6 |
| ... | 6 mos. | 1,391 | ... | 1,391 | 1,391 | 1,391 | 1,391 | 1,391 | 1,391 | 1,391 | 1,391 | 81.6 |
| Missouri-Illinois..... | June | 172 | ... | 403 | ... | 40 | 40 | 4 | 85 | 77 | 114 | 85.4 |
| ... | 6 mos. | 3,063 | ... | 2,441 | 2,441 | 2,441 | 2,441 | 2,441 | 2,441 | 2,441 | 2,441 | 85.4 |
| Missouri-Kansas-Texas Lines..... | June | 3,063 | ... | 2,441 | 2,441 | 2,441 | 2,441 | 2,441 | 2,441 | 2,441 | 2,441 | 85.4 |
| ... | 6 mos. | 3,063 | ... | 2,441 | 2,441 | 2,441 | 2,441 | 2,441 | 2,441 | 2,441 | 2,441 | 85.4 |
| Missouri Pacific..... | June | 9,530 | 1,384,104 | 4,792 | 141,658 | 21,493 | 23,453 | 26,978 | 6,274 | 6,274 | 6,274 | 85.4 |
| ... | 6 mos. | 541 | ... | 1,995 | 52 | 1,464 | 1,737 | 266 | 279 | 287 | 78 | 85.4 |
| Monon..... | June | 541 | ... | 1,995 | 52 | 1,464 | 1,737 | 266 | 279 | 287 | 78 | 85.4 |
| ... | 6 mos. | 541 | ... | 1,995 | 52 | 1,464 | 1,737 | 266 | 279 | 287 | 78 | 85.4 |
| Monongahela..... | June | 177 | ... | 2,431 | ... | 367 | 367 | 367 | 367 | 367 | 367 | 85.4 |
| ... | 6 mos. | 10,521 | ... | 6,874 | 53,283 | 5,550 | 5,550 | 10,452 | 2,885 | 997 | 26,064 | 85.4 |
| New York Central..... | June | 10,521 | ... | 234,247 | 310,952 | 379,798 | 379,798 | 379,798 | 379,798 | 379,798 | 379,798 | 85.4 |
| ... | 6 mos. | 221 | ... | 2,490 | 39 | 2,436 | 3,827 | 500 | 747 | 1,143 | 1,021 | 85.4 |
| Pittsburgh & Lake Erie..... | June | 221 | ... | 13,449 | 243 | 14,525 | 21,915 | 2,421 | 3,448 | 258 | 5,367 | 85.4 |
| ... | 6 mos. | 221 | ... | 13,449 | 243 | 14,525 | 21,915 | 2,421 | 3,448 | 258 | 5,367 | 85.4 |
| New York, Chicago & St. Louis..... | June | 221 | ... | 13,449 | 243 | 14,525 | 21,915 | 2,421 | 3,448 | 258 | 5,367 | 85.4 |
| ... | 6 mos. | 221 | ... | 13,449 | 243 | 14,525 | 21,915 | 2,421 | 3,448 | 258 | 5,367 | 85.4 |
| New York, New Haven & Hartford..... | June | 1,762 | ... | 6,543 | 4,324 | 11,451 | 14,977 | 1,490 | 2,589 | 1,856 | 2,728 | 85.4 |
| ... | 6 mos. | 1,762 | ... | 6,543 | 4,324 | 11,451 | 14,977 | 1,490 | 2,589 | 1,856 | 2,728 | 85.4 |
| New York Connecting..... | June | 21 | ... | 345 | ... | 282 | 291 | 139 | 115 | 25 | 104 | 85.4 |
| ... | 6 mos. | 21 | ... | 345 | ... | 282 | 291 | 139 | 115 | 25 | 104 | 85.4 |
| New York Susquehanna & Western..... | June | 120 | ... | 1,246 | ... | 120 | 120 | 120 | 120 | 120 | 120 | 85.4 |
| ... | 6 mos. | 120 | ... | 1,246 | ... | 120 | 120 | 120 | 120 | 120 | 120 | 85.4 |

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF JUNE AND SIX MONTHS OF CALENDAR YEAR 1958

| Name of Road | Average miles operated during period | Operating Revenues | | Total | | Operating Expenses | | Total | Trans- portation | Total | Operating | Net from operation | Net Railway operating |
|--------------------------------------|--------------------------------------|--------------------|---------|---------|---------|--------------------|--------|--------|---------------------|---------|-----------|-----------------------|--------------------------|
| | | Freight | Pass. | 1958 | 1957 | 1958 | 1957 | 1958 | | | 1958 | | |
| Norfolk & Western..... | June | 16,957 | 282 | 18,004 | 22,620 | 2,292 | 3,923 | 3,491 | 3,966 | 11,182 | 14,557 | 62.1 | 64.4 |
| Norfolk Southern..... | 6 mos. | 92,766 | 1,375 | 98,776 | 128,757 | 15,717 | 17,410 | 19,939 | 21,588 | 72,761 | 88,311 | 26.9 | 26.7 |
| Norfolk Southern..... | June | 4,199 | ... | 4,779 | 5,897 | 1,052 | 1,382 | 1,381 | 1,581 | 3,881 | 4,350 | 79.8 | 79.8 |
| Norfolk Southern..... | 6 mos. | 13,109 | 764 | 15,815 | 14,752 | 2,383 | 2,859 | 2,607 | 3,147 | 11,660 | 12,748 | 86.4 | 86.4 |
| Norfolk Southern..... | 6 mos. | 71,793 | 2,677 | 80,365 | 88,171 | 11,390 | 13,727 | 17,779 | 16,834 | 69,585 | 75,370 | 86.6 | 86.6 |
| Northwestern Pacific..... | June | 1,052 | 5 | 1,059 | 1,063 | 217 | 210 | 17 | 69 | 653 | 678 | 61.1 | 62.5 |
| Northwestern Pacific..... | 6 mos. | 5,430 | 14 | 5,496 | 6,017 | 1,026 | 1,045 | 112 | 460 | 4,180 | 4,207 | 76.0 | 76.0 |
| Northwestern Pacific..... | June | 2,444 | ... | 2,444 | 2,444 | ... | ... | ... | ... | ... | ... | ... | ... |
| Northwestern Pacific..... | 6 mos. | 8,448 | ... | 8,448 | 8,448 | ... | ... | ... | ... | ... | ... | ... | ... |
| Pennsylvania..... | June | 307,862 | 9,239 | 317,101 | 317,101 | 10,368 | 10,368 | 14,211 | 14,068 | 178,517 | 179,911 | 7.306 | 7.306 |
| Pennsylvania..... | 6 mos. | 9,945 | ... | 9,945 | 9,945 | ... | ... | ... | ... | ... | ... | ... | ... |
| Penn.-Reading Seashore Line..... | June | 587 | 121 | 724 | 764 | 211 | 228 | 27 | 115 | 711 | 788 | 160 | 160 |
| Penn.-Reading Seashore Line..... | 6 mos. | 3,195 | 488 | 3,683 | 4,511 | 711 | 788 | 160 | 160 | 1,171 | 1,368 | 40.2 | 40.2 |
| Piedmont & Northern..... | June | 126 | 378 | 504 | 504 | 26 | 26 | ... | ... | ... | ... | ... | ... |
| Piedmont & Northern..... | 6 mos. | 2,481 | ... | 2,481 | 2,481 | ... | ... | ... | ... | ... | ... | ... | ... |
| Pittsburgh & West Virginia..... | June | 4,639 | ... | 4,639 | 4,639 | ... | ... | ... | ... | ... | ... | ... | ... |
| Pittsburgh & West Virginia..... | 6 mos. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Reading..... | June | 7,429 | 432 | 8,338 | 11,154 | 1,154 | 1,154 | 298 | 1,154 | 7,136 | 7,136 | 85.4 | 85.4 |
| Reading..... | 6 mos. | 46,680 | 3,358 | 53,488 | 70,101 | 7,764 | 9,101 | 1,178 | 9,101 | 46,510 | 55,201 | 87.6 | 87.6 |
| Richmond, Fred. & Potomac..... | June | 1,365 | 434 | 2,012 | 2,277 | 144 | 216 | 27 | 144 | 1,768 | 1,932 | 64.5 | 64.5 |
| Richmond, Fred. & Potomac..... | 6 mos. | 7,651 | 2,634 | 11,887 | 14,256 | 1,947 | 2,634 | 162 | 1,785 | 8,311 | 9,883 | 63.7 | 63.7 |
| Rutland..... | June | 2,179 | ... | 2,179 | 2,179 | ... | ... | ... | ... | ... | ... | ... | ... |
| Rutland..... | 6 mos. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| St. Louis-San Francisco..... | June | 4,993 | 283 | 5,276 | 5,997 | 1,227 | 1,173 | 427 | 1,454 | 3,822 | 4,543 | 78.7 | 78.7 |
| St. Louis-San Francisco..... | 6 mos. | 14,313 | 896 | 15,209 | 16,893 | 2,323 | 2,323 | 585 | 2,323 | 12,886 | 14,570 | 87.6 | 87.6 |
| St. Louis-San Francisco & Texas..... | June | 1,989 | 14 | 2,147 | 2,147 | 267 | 243 | ... | ... | ... | ... | ... | ... |
| St. Louis-San Francisco & Texas..... | 6 mos. | 7,575 | 39 | 7,972 | 8,581 | 1,006 | 1,006 | 243 | 1,006 | 6,969 | 7,578 | 71.5 | 71.5 |
| St. Louis, Southwestern..... | June | 2,975 | ... | 2,975 | 2,975 | ... | ... | ... | ... | ... | ... | ... | ... |
| St. Louis, Southwestern..... | 6 mos. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Savannah & Atlanta..... | June | 299 | ... | 299 | 299 | ... | ... | ... | ... | ... | ... | ... | ... |
| Savannah & Atlanta..... | 6 mos. | 1,835 | ... | 1,835 | 1,835 | ... | ... | ... | ... | ... | ... | ... | ... |
| Seaboard Air Line..... | June | 6,595 | 1,160 | 8,199 | 12,511 | 1,599 | 1,599 | 378 | 1,599 | 6,621 | 8,210 | 79.1 | 79.1 |
| Seaboard Air Line..... | 6 mos. | 41,177 | 6,848 | 48,025 | 68,116 | 8,543 | 10,768 | 1,228 | 15,533 | 32,492 | 42,583 | 87.6 | 87.6 |
| Southern Railway..... | June | 17,397 | 1,278 | 18,675 | 21,489 | 3,064 | 3,064 | 328 | 3,392 | 15,283 | 18,293 | 77.5 | 77.5 |
| Southern Railway..... | 6 mos. | 105,567 | 5,551 | 113,467 | 135,573 | 17,722 | 18,566 | 1,795 | 21,275 | 92,195 | 114,298 | 85.9 | 85.9 |
| Alabama Great Southern..... | June | 1,185 | 58 | 1,243 | 1,433 | 253 | 280 | 36 | 299 | 1,044 | 1,243 | 80.8 | 80.8 |
| Alabama Great Southern..... | 6 mos. | 7,733 | 248 | 8,481 | 9,427 | 1,463 | 1,641 | 210 | 1,761 | 6,720 | 7,720 | 79.9 | 79.9 |
| Clin., New Orleans & Tex. Pac..... | June | 2,968 | 581 | 3,549 | 3,549 | 364 | 364 | ... | ... | ... | ... | ... | ... |
| Clin., New Orleans & Tex. Pac..... | 6 mos. | 18,771 | 3,548 | 22,319 | 21,439 | 4,987 | 4,987 | ... | ... | ... | ... | ... | ... |
| Georgia Southern & Florida..... | June | 4,007 | 262 | 4,662 | 4,905 | 957 | 1,250 | 125 | 473 | 4,189 | 4,428 | 81.3 | 81.3 |
| Georgia Southern & Florida..... | 6 mos. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| New Orleans & Northeastern..... | June | 905 | 184 | 1,089 | 1,160 | 182 | 182 | ... | ... | ... | ... | ... | ... |
| New Orleans & Northeastern..... | 6 mos. | 5,123 | 1,123 | 6,246 | 6,246 | 1,097 | 1,123 | 321 | 1,418 | 4,829 | 5,123 | 82.3 | 82.3 |
| Southern Pacific..... | June | 48,425 | 2,973 | 51,398 | 58,044 | 8,536 | 8,536 | 447 | 9,344 | 42,052 | 51,398 | 76.4 | 76.4 |
| Southern Pacific..... | 6 mos. | 214,299 | 15,453 | 229,752 | 253,859 | 37,859 | 37,859 | 3,107 | 40,966 | 188,786 | 222,891 | 87.2 | 87.2 |
| Texas & New Orleans..... | June | 4,283 | 1,728 | 6,011 | 6,011 | 1,044 | 1,044 | ... | ... | ... | ... | ... | ... |
| Texas & New Orleans..... | 6 mos. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Spokane International..... | June | 150 | ... | 150 | 150 | ... | ... | ... | ... | ... | ... | ... | ... |
| Spokane International..... | 6 mos. | 1,265 | ... | 1,265 | 1,265 | ... | ... | ... | ... | ... | ... | ... | ... |
| Spokane, Portland & Seattle..... | June | 936 | 110 | 1,046 | 1,046 | 155 | 155 | ... | ... | ... | ... | ... | ... |
| Spokane, Portland & Seattle..... | 6 mos. | 13,628 | 435 | 15,063 | 15,063 | 2,635 | 2,635 | ... | ... | ... | ... | ... | ... |
| Tennessee Central..... | June | 286 | 1,803 | 2,089 | 2,089 | 441 | 441 | ... | ... | ... | ... | ... | ... |
| Tennessee Central..... | 6 mos. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Texas & Pacific..... | June | 1,831 | 379 | 2,210 | 2,210 | 564 | 564 | ... | ... | ... | ... | ... | ... |
| Texas & Pacific..... | 6 mos. | 11,311 | 1,601 | 12,912 | 12,912 | 4,077 | 4,077 | ... | ... | ... | ... | ... | ... |
| Texas Mexican..... | June | 161 | 1,793 | 1,954 | 1,954 | 340 | 340 | ... | ... | ... | ... | ... | ... |
| Texas Mexican..... | 6 mos. | 239 | 5,571 | 5,810 | 5,810 | 779 | 779 | ... | ... | ... | ... | ... | ... |
| Toledo, Peoria & Western..... | June | 239 | 3,567 | 3,806 | 3,806 | 485 | 485 | ... | ... | ... | ... | ... | ... |
| Toledo, Peoria & Western..... | 6 mos. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Union Pacific..... | June | 9,753 | 32,348 | 42,101 | 42,101 | 5,516 | 5,516 | 711 | 7,489 | 34,612 | 42,101 | 85.8 | 85.8 |
| Union Pacific..... | 6 mos. | 57,531 | 197,859 | 255,390 | 255,390 | 31,431 | 31,431 | 3,586 | 35,017 | 220,373 | 255,390 | 87.2 | 87.2 |
| Virginian..... | June | 498 | ... | 498 | 498 | ... | ... | ... | ... | ... | ... | ... | ... |
| Virginian..... | 6 mos. | 2,392 | ... | 2,392 | 2,392 | ... | ... | ... | ... | ... | ... | ... | ... |
| Wabash..... | June | 292 | ... | 292 | 292 | ... | ... | ... | ... | ... | ... | ... | ... |
| Wabash..... | 6 mos. | 2,392 | ... | 2,392 | 2,392 | ... | ... | ... | ... | ... | ... | ... | ... |
| Ann Arbor..... | June | 294 | 682 | 976 | 976 | 85 | 150 | 7 | 148 | 828 | 976 | 90.2 | 90.2 |
| Ann Arbor..... | 6 mos. | 4,183 | ... | 4,183 | 4,183 | ... | ... | ... | ... | ... | ... | ... | ... |
| Western Maryland..... | June | 844 | ... | 844 | 844 | ... | ... | ... | ... | ... | ... | ... | ... |
| Western Maryland..... | 6 mos. | 1,192 | ... | 1,192 | 1,192 | ... | ... | ... | ... | ... | ... | ... | ... |
| Western Pacific..... | June | 1,192 | 2,334 | 3,526 | 3,526 | 417 | 417 | ... | ... | ... | ... | ... | ... |
| Western Pacific..... | 6 mos. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Wisconsin Central..... | June | 1,831 | 2,416 | 4,247 | 4,247 | 43 | 43 | ... | ... | ... | ... | ... | ... |
| Wisconsin Central..... | 6 mos. | 1,831 | 14,583 | 16,414 | 16,414 | 269 | 269 | ... | ... | ... | ... | ... | ... |

Seaboard On The Move

(Continued from page 16)

● **Aug. 16, 11:15 p.m.**—The movers tackle another big job: moving the law department—including 700 sections of the law library.

● **Sunday, Aug. 17, 5:15 a.m.**—The law department is loaded and on its way.

● **Aug. 17, 1 p.m.**—The last loads from the engineering, signal and reproduction departments are secured in vans. At this point, the Norfolk building has been cleared—in less than 40 hours.

Meanwhile, the tempo has picked up at the receiving end. Now the coded tags, containing two colors and two numerals, begin to pay off. One color designates the floor where the equipment is to go; a second color indicates the direction of flow on that floor; a big numeral indicates

the office; a sub-numeral designates the exact spot in that office.

● **Aug. 17, 10 p.m.**—The last piece of furniture from Norfolk is in place in the Richmond building. Total elapsed time: 52 hours.

● **Monday, Aug. 18, 8 a.m.**—A new three-position switchboard flashes into life in Richmond—and the former Norfolk employees begin to seek out their new offices. After a few exploratory trips through the handsome, air-conditioned building, they pick up their work where they left off on Friday—97 miles away.

Half of "Operation Scram" is completed. Executive Vice-President J. R. Thorne tells a caller, with mixed wonderment and pleasure: "You wouldn't have thought it possible."

● **Aug. 22**—More hundreds of Seaboard employees take final leave of old surroundings—this time in the railroad's general accounting offices in Portsmouth. The moving machinery that functioned so smoothly in Norfolk swings back into motion. During the weekend the movers again work around the clock, on split-

second timing, methodically packing up office after office.

● **Aug. 23-24**—The vans again thunder across the highways, as accounting office furniture, equipment and records move swiftly and surely to their designated spots in the new headquarters building.

● **Aug. 25, 8 a.m.**—The Portsmouth workers report to their new offices—and one of the biggest corporate moves ever undertaken in the U. S. is over.

Much, of course, remains to be done. Some families have not yet found housing—despite the efforts of the Richmond Chamber of Commerce, and the railroad itself, which served as a clearing house for real estate listings. But the railroad has given employees three months to complete their household moves—at the company's expense.

Some other odds and ends have to be taken care of. But the important thing has been accomplished: the Seaboard, for the first time in any living employee's memory, now has its general offices under a single, handsome roof. And Marvin Myers, they're saying, was right, after all.

Railroading



After Hours with

Jim Lyne

SOCIALIZATION & LABOR—Guy S. Pollard, Jr., switchman at Springfield, Mo., tells me many of his fellow-employees believe the railroads are headed for government ownership; and that this would be okay—more jobs, easier working conditions, more liberal pensions. Maybe, but I doubt it.

On the New York subway system, the crew used to be a motorman and only one fewer trainmen than there were cars in the train. Now, under municipal operation, a crew is down to a motorman—and one trainman for the entire train. Are Post Office employees so generously dealt with—compared to railroad employees?

In general, under government operation, wage differences between occupations tend to diminish. There are fewer employees whose pay is far higher than average. (A hundred engineers or train dispatchers have no more votes than 100 laborers.)

Thriving railroads under private ownership surely offer a more attractive future to railroaders than deficit-ridden government operation does. Have any readers other ideas or information on this important question?

CUSTOMER COMES FIRST—Howard Waddell, who works for the ACL at Florence, S.C., has some ideas on how to improve freight service—at not too great an expense.

The railroads, he said, did a good job of explaining how and why their situation had deteriorated. As a result, they now have some favorable legislation. The next step, he says, should be for every railroader from president to station hand to work with enthusiasm to give the customers the best and most attentive service possible—with special emphasis on eliminating delays.

Running a railroad, primarily, to achieve the lowest possible

transportation ratio—probably isn't the best way to court the customers. Mr. Waddell points out that industrial switching crews could be, and often are, effective salesmen.

EMPLOYEE VIEW ON PENSIONS—I would like to see the results of a secret poll of railroad employees on proposed increases in railroad pensions and pension taxes. I have a letter from a towerman on an Eastern railroad, and here is what he says:

"I am in favor of incorporating the railroad retirement program into the Social Security program. My reasons: (1) Neither railroads nor employees can afford an increase in payroll taxes; (2) we are paying about 3 times the Social Security rate, yet our benefits are not substantially higher; (3) few men take their pension till they're almost ready to die."

REMOTE CONTROL LOCOMOTIVES—I note that the French railways have been conducting extensive experiments with remote-control operation of a full-size diesel-electric yard locomotive. The material testing division of the railways developed the control equipment—using a carrier-wave in a band assigned to the railways.

Another innovation in France (reported in the current issue of the magazine "Revue Générale des Chemins de Fer") is a sliding-scale system of demurrage charges—payments by shippers for the holding of cars. "Free time" never exceeds a day (and is less where shipper's sidings are pulled more often than once in 24 hours). Demurrage charges are reduced in the "off season" between July 15 and the end of August, and are increased during two periods of heavy seasonal loadings (February-March, October 1-December 15). During the other six months "normal" charges apply.

Needed: Freedom for Suburban Lines

That's what the Northwestern University Transportation Center recommends in a study on "Basic Issues in Chicago Metropolitan Transportation." Areas in which rails might move ahead: fare adjustments, fewer stops, schedule revisions.

Northwestern University's Transportation Center has come out with a recommendation that regulation of privately-owned suburban transportation lines be given a thorough review.

"We recommend," the report stated, "that the question of restrictions on entry, abandonment, service and price of passenger services by private companies be officially reviewed and suggest that many such restrictions are not now serving the public purpose for which they were intended, or indeed, any public purpose."

The Center's findings were contained in a research study, "Basic Issues in Chicago Metropolitan Transportation," financed jointly by the Chicago Association of Commerce and Industry and the Chicago Central Area Committee.

The study also recommended that the Chicago Transit Authority "continue to maintain itself as a self-supporting service, at whatever levels of service and fares which this involves."

Edwin T. Haeefe, assistant director of the Center and project leader of the study, went a step further in a discussion of the report. It would come as no surprise, he said, "if we never get into a situation requiring large subsidy of transit in Chicago."

(Previously, top officers of five commuter-carrying railroads had expressed opposition to subsidy for their operations. RA, July 28, p. 7.)

Mr. Haeefe described Chicago's suburban rail system as "excellent." Some lines, he said, can gain business, provided they have freedom to operate.

Mr. Haeefe cited three areas in which the roads might move ahead in commuter matters:

- Fare adjustments.
- "Perhaps some substantial cutback in number of stops."
- Schedule revisions.

Basically, these three points are three goals of the present attempt by the Chicago & North Western to get its suburban service operating more efficiently—and in the black. Northwestern's transportation expert touched specifically on only one of C&NW's aims—the closing of some 23 close-in stations, most of them in Chicago itself. The move, he said, is "perfectly reasonable. . . It should have been done long ago."

Mr. Haeefe suggested that regulation of suburban rail and bus lines could be reduced—or it could be removed from state jurisdiction and placed under a local agency serving as a type of board of appeals. The effect would be to place the burden of proof on the public (instead of

the carrier, where it now is) in cases involving changes in suburban operations.

Regulatory power over private common carrier operations in the Chicago area, the report declared, should be removed from the Illinois Commerce Commission.

"It is essential that this power be vested in an agency responsible for this area only, and operated under laws originating and approved by the electorate of this area if any uniformity in public decisions is to be achieved."

(Unanimity of opinion on this point probably won't come easy. Railroad men have indicated a liking for a setup that would permit them to revise operations and defend the changes later—thus, in effect, defending fact rather than theory. At the same time, however, some efforts have been made to make regulation less of

a "local" thing and thereby eliminate or reduce possible local pressure on the regulators.)

Railroads, Mr. Haeefe said, are now subject to regulation which does nothing—except to force the roads to operate unprofitably and pre-determine that they go down and down. And if a line loses money as a continuous process, he noted, it's inevitable that the line will go out of business.

"Regulation delays, but it doesn't prevent abandonment."

(Chicago has one suburban road, the Chicago, Aurora & Elgin, now out of the passenger business and another, the Chicago North Shore & Milwaukee, petitioning for abandonment. The latter case more recently has stirred protests from on-line communities. But Mr. Haeefe pointed to the line's history and its competition and termed the action "a normal kind of market adjustment.")

The report set up two principal needs for solving the city's metropolitan transportation problems: a metropolitan approach to planning; and an "orderly process for public review and approval of plans."

Neither need is now being met, the report said. And, until such processes are established, "there should be no further public investment in transit facilities unless they can be made self-supporting."

The study also placed emphasis on a recommendation that "more attention be given to genuine public demand as registered in the market place."

Other recommendations:

- That official study of the general problem of government in the metropolitan area be intensified and that transport planning be considered as a part of this study and not placed in a special district, authority or commission.

- That, in the absence of publicly-approved planning policies to the contrary, market demand for transport services be the guidepost for any immediate further public investment in transportation facilities.

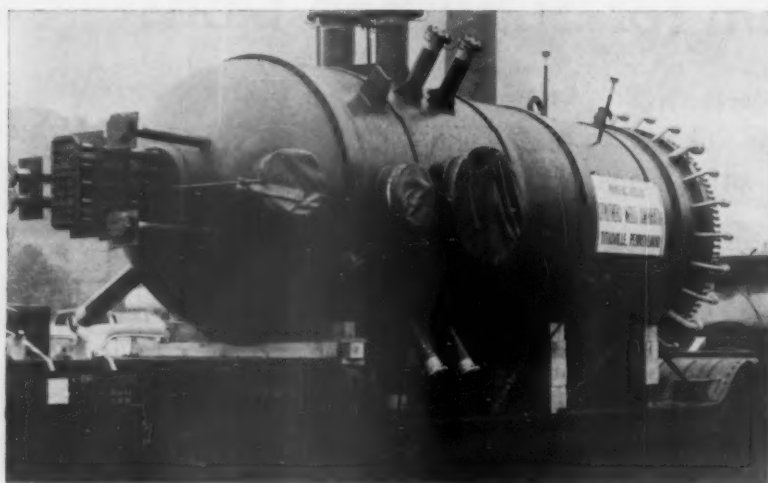
- That costs of the highway system be recovered by user charges.

Although it was emphasized that this report and its recommendations are to serve merely as a basis for continuing study, opposition to the findings developed immediately. Chicago's Mayor Richard J. Daley was among those taking exception to the recommendations. And a CTA spokesman differed sharply with the study on its recommendation that technical agencies—like CTA—should not be the transportation planning agencies.



Goodbye, Grand Central

A moment of nostalgia marks the farewell of Grand Central Terminal's general station master. Edward G. Fischer, who has nearly fifty years of memories involving his job at the Terminal, will retire next week. Mr. Fischer, who began work with the New York Central as a "kid in knickerbocker pants," carried the first inkwells into GCT's train dispatcher's office when it opened in 1913.



Atomic Reactor Tank Manages to Squeeze Through

Special rail handling was required for shipping an intricate 140,000-lb 35-ft-long steel tank, a principal component of the National Advisory Committee for Aeronautics' new atomic reactor at Plum Brook Research Station, near Sandusky, Ohio. Manufactured by

Struthers Wells Corp., Titusville, Pa., the tank will be used for research in nuclear power. Its size required a great deal of work in routing. At one place, it passed through a bridge with only two inches to spare. It was routed on the Pennsy, the NKP and the B&O.

Agency Consolidations Hit Snags

Dual and central agency station plans were hit from two sides last week—legal and labor.

M&StL's dualizations in Minnesota were tossed out by the Hennepin County District Court. C&NW was served with a strike notice from the ORT after the road put central agency plans into effect in South Dakota and Iowa.

In the M&StL case the court took the position that Minnesota law requires the road to have an agent on duty at its stations during the business day. Best guess is that M&StL will appeal the ruling to the State Supreme Court.

C&NW's dispute with the ORT was in the process of mediation under the National Mediation Board when the union called a strike for 6 a.m. Thursday. The North Western obtained a restraining order heading off the walkout. A hearing is set August 25 in Chicago.

The railroad said no violation of work

agreements or contracts with the ORT exists, but that the union is demanding agreement on a new contract provision: "No position in existence on December 3, 1957 will be abolished or discontinued except by agreement between the carrier and the organization."

Such a provision, the railroad charged, would freeze for all time the number of station agents and telegraphers, regardless of need. C&NW declared that the ORT demand "is not a bargainable issue under the Railway Labor Act." Both South Dakota and Iowa regulatory commissions, C&NW said, pointed out that by statute the commission has the exclusive power to determine whether station agencies may be discontinued and that private parties by contract cannot override the commission or the duties it imposes on the railroads in the public interest. North Western thus takes the position that the station case is a regulatory, rather than a labor, matter.

RR Key: 'Planning for Profits'

"Plan ahead," in one form or another, is becoming an increasingly popular slogan in industry—including the railroad industry. B. F. Biaggini, Southern Pacific vice-president, dwelt at length on the subject recently in addressing a west coast meeting of the American Railroad Superintendents Association.

Some of his observations:

"The most essential ingredient of our forward look is planning for profits. Our other planning will avail us of nothing at

all if we overlook the fact that railroads must make a profit if they are to maintain their position in the transportation industry. To improve our position, our profits must be improved. Every project which is to be included in long-range plans, then, must meet the test of profitability. . .

"Our planning must be flexible—sufficiently flexible to take advantage of new developments as they occur and to rid ourselves of obsolete practices and facilities. . . Who can say what research will

produce for us in the next few years—gas turbines, free piston engines, atomic propulsion, larger capacity freight cars, better ties, bridges, track material, a fully automated railroad—perhaps? All these things are in the realm of possibility and it is our responsibility to have plans which will work without them but flexible enough to include them when and if they materialize. . .

"And finally the most important phase of our future planning—the development of a continuing management team to supervise and execute the long range plans of today which will be the current projects of tomorrow. . . The most important asset our railroads can have is a management developed in depth with each officer and supervisor contributing all of the knowledge and skill at his command to the forward progress of the company. . .

"In planning of any kind it is extremely important that the results express the ideas and objectives of all our railroad officers, and so far as possible of our employees. Ideas usually originate near the point of use. So should it be with planning. . . The people who are doing the work know more about the operation than [others] . . ."

Merger Off

MoPac-T&P Unification Is Found Not Necessary

Railroad merger proposals last week were reduced by one. Missouri Pacific announced in St. Louis that it won't undertake to merge with the already closely-held Texas & Pacific.

The two roads have had a joint study committee looking into merger possibilities for some time. MoPac's board of directors indicated that the committee's final report recommended abandonment of the merger idea.

"As pointed out in the report, the companies have for many years operated jointly at all common points, and as this would be an end-to-end merger of two railroads, it would not produce the economies which are often present in a merger of parallel lines," MoPac's statement said.

MoPac and T&P operate on as close a relationship as is perhaps possible short of outright unification. Their major freight and passenger trains run through without regard for corporate boundaries. Motive power is interchanged as a matter of course. At common points, the two roads operate joint terminals, including the terminal property in New Orleans known as Texas Pacific-Missouri Pacific Terminal Railroad.

MoPac owns all of T&P's preferred stock and some 60% of its common. Ownership amounts to about 75% of all T&P stock.

The merger committee's report indicated that while outright consolidation would produce few economies, there were possibilities of further savings from greater joint use of existing facilities.

MARKET OUTLOOK *at a glance*

Carloadings Rise 1.2%

Above Previous Week's

Loadings of revenue freight in the week ended August 16 totaled 625,991 cars, the Association of American Railroads announced on August 21. This was an increase of 7,411 cars, or 1.2%, compared with the previous week; a decrease of 124,649 cars, or 16.6%, compared with the corresponding week last year; and a decrease of 143,653 cars, or 18.7%, compared with the equivalent 1956 week.

Loadings of revenue freight for the week ended August 9 totaled 618,580 cars; the summary, compiled by the Car Service Division, AAR, follows:

| REVENUE FREIGHT CAR LOADINGS For the week ended Saturday, August 9 | | | |
|---|------------|------------|------------|
| District | 1958 | 1957 | 1956 |
| Eastern | 89,526 | 111,932 | 112,620 |
| Allegheny | 103,292 | 141,070 | 126,577 |
| Pacahontas | 52,274 | 68,000 | 64,972 |
| Southern | 110,024 | 118,910 | 125,803 |
| Northwestern | 100,932 | 127,208 | 105,389 |
| Central Western | 113,384 | 121,393 | 122,747 |
| Southwestern | 49,128 | 51,958 | 57,099 |
| Total Western Districts | 263,464 | 300,559 | 285,235 |
| Total All Roads | 618,580 | 740,471 | 715,207 |
| Commodities: | | | |
| Grain and grain products | 67,181 | 59,010 | 54,830 |
| Livestock | 4,395 | 5,076 | 8,548 |
| Coal | 109,964 | 135,370 | 133,086 |
| Coke | 5,707 | 11,000 | 7,721 |
| Forest Products | 39,230 | 41,362 | 49,321 |
| Ore | 33,046 | 84,831 | 58,502 |
| Merchandise i.c.l. | 44,849 | 54,672 | 59,705 |
| Miscellaneous | 294,208 | 349,150 | 343,494 |
| August 9 | 618,580 | 740,471 | 715,207 |
| August 2 | 622,204 | 740,708 | 660,287 |
| July 26 | 607,701 | 736,407 | 649,806 |
| July 19 | 581,817 | 743,359 | 648,492 |
| July 12 | 491,142 | 692,599 | 619,988 |
| Cumulative total, 32 weeks | 17,677,560 | 22,029,274 | 22,701,123 |

IN CANADA—Carloadings for the seven-day period ended August 7 totaled 73,004 cars, compared with 122,267 cars for the previous ten-day period, according to the Dominion Bureau of Statistics.

| | Revenue Cars Loaded | Total Cars Rec'd from Connections |
|----------------------|---------------------|-----------------------------------|
| Totals for Canada: | | |
| August 7, 1958 | 73,004 | 24,956 |
| August 7, 1957 | 78,853 | 31,325 |
| Cumulative Totals: | | |
| August 7, 1958 | 2,233,203 | 861,230 |
| August 7, 1957 | 2,399,528 | 1,009,547 |

New Equipment

FREIGHT-TRAIN CARS

► **Orders Increase.**—July orders for new freight cars amounted to 376, an increase of 18 per cent over the 317 ordered in June. July 1957 orders totaled 1,251. Deliveries in July totaled 2,113, compared with 2,407 in June and 7,725 in July 1957. Cars on order and undelivered on August 1 totaled 25,994, compared with 27,757 on July 1 and 85,229 a year ago.

| Type | Ordered July, 1958 | Delivered July, 1958 | Undelivered Aug. 1, 1958 |
|----------------------|--------------------|----------------------|--------------------------|
| Box—Plain | 25 | 489 | 8,515 |
| Box—Auto | 0 | 0 | 600 |
| Flat | 0 | 67 | 1,927 |
| Gondola | 2 | 637 | 2,544 |
| Hopper | 124 | 188 | 8,838 |
| Cov. Hopper | 78 | 163 | 1,297 |
| Refrigerator | 0 | 245 | 1,022 |
| Stock | 0 | 0 | 0 |
| Tank | 147 | 238 | 1,085 |
| Caboose | 0 | 5 | 25 |
| Other | 0 | 81 | 141 |
| Total | 376 | 2,113 | 25,994 |
| Car Builders | 376 | 1,080 | 4,694 |
| Railroad Shops | 0 | 1,033 | 21,300 |

New Facilities

► **Texas & Pacific.**—Ordered equipment from General Railway Signal Company for 52 miles of type K2 centralized traffic control between Judd, Tex., and Dothan (RA, Feb. 17, p. 35). By expanding the present control machine at Santo, a single dispatcher will control 114 miles of road.

Purchases & Inventories

► **Five Months' Purchases Down 46.91%.**—Purchases by domestic railroads of all types of materials in this year's first five months were \$506,253,000, or 46.91%, lower than in the comparable 1957 period. Purchase and inventory estimates in following tables were prepared by Railway Age.

| | May 1958 | Five Months 1958 | Five Months 1957 |
|--------------------------------|-----------|------------------|------------------|
| PURCHASES * | (000) | (000) | (000) |
| Equipment ** | \$ 13,035 | \$ 25,473 | \$ 268,160 |
| Rail | 2,351 | 20,297 | 52,343 |
| Crossties | 2,946 | 19,690 | 32,607 |
| Other Material | 65,975 | 359,363 | 519,746 |
| Total from Manufacturers | \$ 84,307 | \$424,823 | \$ 872,856 |
| Fuel | 26,159 | 148,182 | 206,402 |
| Grand Total | \$110,466 | \$573,005 | \$1,079,258 |

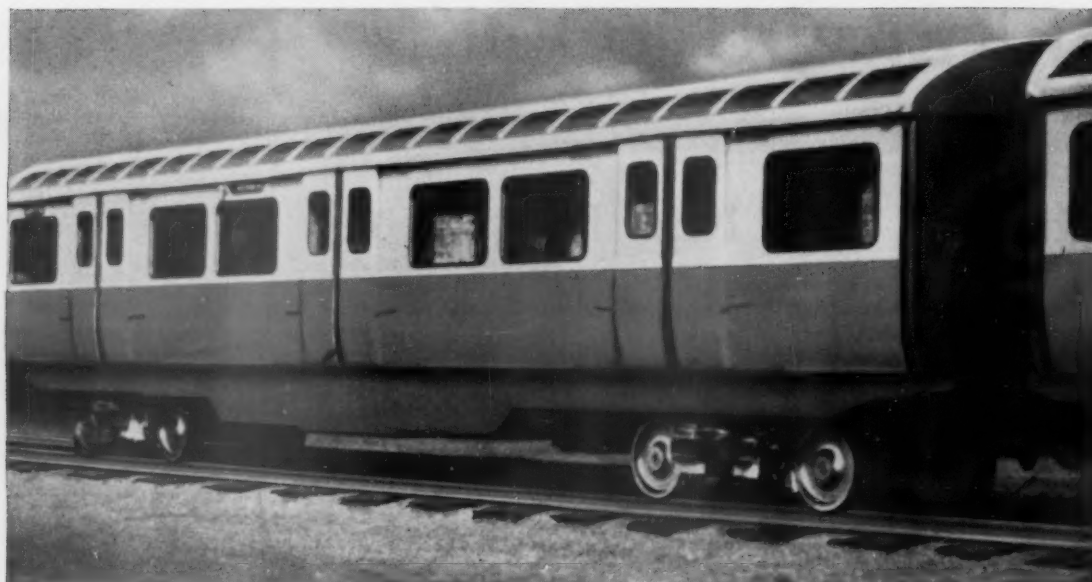
* Subject to revision.

** Estimated value of orders.

| | May 1, 1958 | May 1, 1957 |
|----------------------|-------------|-------------|
| INVENTORIES * † | (000) | (000) |
| Rail | \$ 60,927 | \$ 61,958 |
| Crossties | 98,570 | 100,014 |
| Other Material | 479,856 | 551,587 |
| Scrap | 23,720 | 21,449 |
| Fuel | 23,706 | 33,586 |
| Total | \$686,779 | \$768,594 |

* Subject to revision.

† All total inventory figures taken from ICC statement M-125 for month indicated.



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REA

People in the News

ALTON & SOUTHERN.—Robert K. Heineman, vice-president, elected president, with headquarters at East St. Louis, Ill. and St. Louis, Mo., to succeed James Davies, elected chairman of the board, East St. Louis. A. L. Lenny, in addition to his duties as general manager, elected vice-president.

CANADIAN PACIFIC.—C. A. Jennings, ticket agent, Windsor station, appointed chief of passenger ticket bureau at Montreal, succeeding W. H. Price, retired.

John A. Bennett, assistant purchasing agent, London, England, retired July 31.

Walter M. Harrison, assistant to vice president, Pacific region, Vancouver, B.C., transferred to the Prairie region, Winnipeg, Man.

CHICAGO & ILLINOIS MIDLAND.—G. D. Wilson, purchasing agent, Springfield, Ill., retired after 32 years' service. The positions of purchasing agent and general storekeeper consolidated and J. J. Rodems, formerly general storekeeper, appointed purchasing agent-general storekeeper, Springfield.

COLORADO & WYOMING.—W. R. Dunn, divisional controller, Western division, Colorado Fuel & Iron Corporation, Pueblo, Colo., appointed controller and assistant treasurer, C&W, succeeding William D. Cool, retired.

William J. O'Connor, general manager, Pueblo, Colo., elected director and vice-president and general manager, to replace the late Ward Wire (RA, May 12, p. 44).

FRISCO.—Norbert A. Kirchoff, general industrial agent, St. Louis, advanced to assistant to vice president—traffic, in charge of industrial development.

J. F. Christian and J. M. Godfrey appointed assistant superintendents, Sherman, Tex., and Tulsa, Okla., respectively.

INTERNATIONAL OF CENTRAL AMERICA.—G. F. McGowan appointed consultant to the president, T. Bradshaw, at Guatemala City, Guatemala.

NEW HAVEN.—Harold W. Jenkins assistant chief engineer, New Haven, appointed chief engineer there, replacing T. Peter Polson, retired. The engineering department has been reorganized. Abolished posts of maintenance engineer and general bridge and building supervisors; all track and bridge and building supervisors now report directly to division engineers. Albert E. Cawood, engineer of structures, New Haven, promoted to assistant to chief engineer. Edwin N. Chapin, assistant engineer of structures, succeeds Mr. Cawood as engineer of structures. Murray J. McGovern, district engineer, New York, named contract engineer. Frederick O. Bassinger, assistant to chief engineer, named engineer plumbing and heating. Richard J. Phillips, maintenance engineer, New Haven, appointed division engineer there. Harry B. Bussing,

maintenance engineer, Boston, named division engineer there. George H. Shepard, special engineer, New Haven, appointed assistant division engineer there. Burt K. Heald, assistant maintenance engineer, Boston, appointed assistant division engineer there. William A. Crosby, chief clerk to chief engineer, named office assistant to chief engineer.

RAILWAY EXPRESS AGENCY.—E. Boykin Hartley, director, purchasing division, elected vice president—traffic, New York succeeding Kinsey N. Merritt, who retires August 31.

Lawrence W. Brew, night superintendent, Terminal division, appointed superintendent, office division.

Harold Spath, supervisor of organization, appointed assistant director, International division, New York.

Emil Seaurup, general attorney, New York, appointed assistant to vice president—administration and finance, effective September 1.

SANTA FE.—George J. Handzik, manager of special events, appointed acting manager of public relations, Chicago, effective July 1, to replace James P. Reinhold, assistant to the president in charge of public relations, who is on temporary leave of absence due to illness.

Effective August 1, J. G. Roberts, general freight agent, San Francisco, appointed freight traffic manager, Chicago, to succeed Harvey R. Wright, assistant general freight traffic manager, promoted to general freight traffic manager (RA, June 30, p. 34). L. C. Hudson, eastern freight traffic manager, New York, named freight traffic manager, San Francisco, to replace E. B. Johnson, who retired July 31. Mr. Hudson's successor is W. F. Hartnett, general agent, Boston. L. J. Welter, district agent, Memphis, Tenn., succeeds Mr. Hartnett, and in turn is replaced by M. J. McCarthy, Jr., traveling freight and passenger agent, Milwaukee, Wis. J. R. Walter, general freight agent, Chicago, named assistant freight traffic manager, San Francisco, and is replaced by A. A. Moser, assistant general freight agent, Los Angeles. G. B. Kelley, assistant to general freight traffic manager, Chicago, named to succeed Mr. Moser, and in turn is succeeded by F. L. George, division freight agent, Oakland, Cal.

W. B. Cox, special representative, public relations department, Chicago, advanced to succeed W. J. G. Strachan, special representative, resigned. George T. Grader, special assistant, named to replace Mr. Cox. J. F. Curto appointed assistant manager, film and photographic bureau.

Louie L. Bonds, assistant division freight agent, San Francisco, named general agent, Portland, Ore., succeeding Frank J. O'Drain, promoted to division freight agent, Oakland, who in turn is replaced by Marvin J. Ray, traveling freight agent, San Francisco.

T. E. Decker, assistant to general auditor, Chicago, appointed auditor, Panhandle & Santa Fe,

Amarillo, Tex., to succeed R. D. Ewers, named auditor, Gulf, Colorado & Santa Fe, Galveston, Tex., replacing J. F. Lovely, who retired July 31.

Effective August 4, C. A. Crouch and A. K. Johnson, on leave of absence (RA, June 30, p. 34), resumed their duties as superintendent of communications, Coast Lines, Los Angeles and superintendent, Los Angeles division, San Bernardino, Cal., respectively.

D. C. Wilson, comptroller and assistant secretary, Santa Fe, New York, retired August 1.

R. C. LeHew appointed acting signal supervisor, Middle division, Newton, Kan., to replace C. N. Gates, on leave of absence.

SEATRAN LINES.—Guy D. Larrabee, appointed general freight traffic manager in charge of sales in Boston, New York and Savannah. Richard S. Denenholz named general freight traffic manager—rates and divisions. Mr. Larrabee was formerly vice-president sales and services, Rutland. Mr. Denenholz was distribution and general traffic manager, Hawaiian Pineapple Company Ltd.

WESTERN MARYLAND.—John P. Crowley appointed auditor of revenues, Baltimore, succeeding Vernon L. Knecht, who retired August 15.

OBITUARY

Richard C. Stanley, 67, who retired June 1 as passenger traffic manager of the New Haven at Grand Central Terminal, New York, died at his home in Teaneck, N.J., August 12.

Harry E. Muchnic, founder and chairman of the board of the Locomotive Finished Material Company, died June 26 at Atchison, Kan.

H. E. McCandless, 68, retired circulation manager of Railway Age and director of Simmons-Boardman Publishing Corporation, died at his home in Mt. Vernon, N.Y., August 13.

William S. Harris, retired Eastern district manager of the Nathan Manufacturing Corporation, died August 6 at Buffalo, N.Y.



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You Ought To Know...

Katy's board of directors has voted to amend the company's preferred stock modification plan in line with a recent ruling by the ICC (RA, Aug. 4, p. 33). Holders of preferred stock will be asked to approve the plan early in September.

Northern Pacific continues to gain strength as the year progresses. July net came close to July 1957 earnings and prospects are good for a financially healthy August. Factors in the NP's showing: a pickup in carloadings, close expense control, increased oil revenues.

The 1959 Clark Essay Contest will begin September 1 and end April 3. Sponsored by the Industrial Truck Division of Clark Equipment Co., the theme will be "Materials Handling—Tomorrow's Solutions of Today's Problems." A first prize of \$2000 and nine other prizes totaling \$3000 will be awarded the best papers.

Randolph Phillips, who made an unsuccessful bid for a seat on the Pennsylvania's board of directors* last May, has now lost a court battle to upset the election. Mr. Phillips had charged that the election was invalid because the railroad circulated "false and misleading" information about him in a proxy statement. A federal court, however, found the company's proxy letters did not violate SEC rules. The six directors whose election Mr. Phillips contested were management-nominated.

Chesapeake & Ohio's new \$50,000 air-conditioned passenger station at Norfolk, Va., went into service August 18. It replaces passenger facilities previously operated at the Norfolk wharf. C&O motor coaches will shuttle between the new station and Newport News or the Hampton Roads transfer passenger facility to connect with trains.

Chicago, Aurora & Elgin has received Illinois Commerce Commission authorization to dip into a special \$115,000 fund—at a \$35,000-a-month rate—to cover operating losses. The fund was set up by payment from the state toll highway commission and was intended to be used for construction of a trestle on a now-unused branch (RA, June 30, p. 32).

Rock Island figures to save about \$120,000 annually on discontinuance of 29 non-rush-hour commuter trains. The Illinois Commerce Commission authorized RI to drop 19 Monday-Friday runs, plus 10 Saturday and two Sunday-holiday trains. Only rush-hour trains are involved, and they'll be consolidated into one run. Also authorized by the commission: a commuter train consolidation petition from the Chicago & Western Indiana; and a suburban fare increase for the Wabash.

Transportation Statesmanship and Management Conception of Transportation will be the themes of the annual meeting of the American Society of Traffic & Transportation at the Commodore Hotel, New York City, Sept. 11. Dr. George P. Baker, professor of transportation at Harvard, will be among the speakers. Dr. Baker will also address a Transportation Institute, sponsored by the Transportation Association of America and 24 cooperating organizations, at the Penn-Sheraton Hotel in Pittsburgh Sept. 15.

U.S. Freight, the nation's biggest freight forwarder and a leading exponent of Plan 3 piggyback (RA, Aug. 11, p. 9) reported second quarter earnings of 60 cents per share—triple its first quarter earnings. "We are now heartened," said President Morris Forgash, "as to what we can show with presently expanding piggyback and other activities as we look toward their effects for the third quarter."

The Bangor & Aroostook has received 150 new end rack pulpwood cars costing \$1.5 million from Magor Car Corp., Clifton, N. J. The new cars are each 51 feet long and equipped with roller bearings. They each carry 22 cords of pulpwood and can be loaded and unloaded mechanically. Four of the cars are test-equipped with a new-type disk brake. (RA, Oct. 21, 1957, p. 39.)

Manhattan's last elevated line, the 155th Street shuttle, will cease operations August 31. Many years ago, the shuttle connected the Ninth Avenue el with New York Central's Putnam division at Sedgwick Avenue. Now, with the death of the Ninth Avenue el, the end of passenger service on the Putnam, and the abandonment of the nearby Polo Grounds by the New York Giants, the shuttle will be closed in order to save \$230,500 a year.



NEW ATLANTIC COAST LINE offices slated for Jacksonville will look like this. The 15 story-plus-penthouse structure is scheduled for completion in 1960. It will house the line's general offices, which will be moved to Jacksonville from Wilmington, N. C., upon completion. Photo is of a scale model now on display for ACL employees.



Seaboard Air Line's

new \$6,000,000 general office
building in Richmond, constructed by

DOYLE AND RUSSELL

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Suitable for turning cars 35 foot
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Write to Box 864, RAILWAY
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(X-338)

Give the Traffic People a Hand!

Times of business decline usually bring an open season on the traffic department.

Some people even seem to believe, if railroads had more high-pressure sales methods and sales training programs, that they would have no serious problem of adequate traffic volume.

Such criticism tends to overlook or underemphasize two vitally important parts of the railroads' sales problem, viz.: (1) That it is hard to sell to informed buyers a product that isn't satisfactory; and (2) that pricing must be competitive.

If a salesman for domestic brushes calls on a housewife, he can often get an order on the strength of his personality and sales skill alone. The housewife, probably, does not have in mind a price list of other brush producers—nor does she have a laboratory for testing the relative merits of competing brushes.

Where the buyer is non-professional and relatively uninformed, and where the product does not involve a lot of money, sales personality and skill are the principal factors in getting orders. But a sales technique of an entirely different order is called for where the buyer is just as skillful as the salesman, where he knows competitive prices, and just what the comparative merits or demerits of competing products are.

Some railroad freight service is of superior quality. Some of it is priced competitively (or at times, even lower than competition requires). There is not much of a sales problem with such

services. Most buyers of freight transportation know their jobs well enough to recognize a bargain when they see it, even without a high degree of sales skill being brought into play upon them.

Competent salesmanship is as essential in the railroad business as it is in any other business. But to give the skilled salesman a fair chance to show his ability, (1) the service must be acceptable to the customer, and (2) it must be priced competitively. There is some railroad freight service which does not meet these two tests. And where these tests are not met, there is mighty little likelihood that sales vigor and skill can compensate for the deficiency.

Railroad managements pay close attention to their operating ratios—and especially to the transportation ratio. But there is no ratio or other easy yardstick to reveal to them the quality of freight service they are providing. Figures on average freight train speed, and delay reports on freight trains, yield no significant information. What the shipper is interested in, from a standpoint of service, is: (1) elapsed time from the shipper's siding to that of the consignee; (2) the dependability of this scheduling; (3) the absence of loss and damage to lading.

Until there are timely ratios developed to tell top management what's happening to service—as reliably and as promptly as the information conveyed by operating and transportation ratios—it is going to be hard for freight sales departments to produce satisfactory results in an era of competition.

There is so much complexity to railroad pricing that executives not brought up in the traffic department can scarcely be expected to know a great deal about it. But pricing—and service—are the key to railroads' future; and executives will find it worthwhile to devote increasing attention to these vital phases of the business.

IT'S A TOP MANAGEMENT PROBLEM: There are times when departmental problems—no matter how detailed—just cannot be solved solely by departmental action. Policy questions of such magnitude arise that they get out beyond the departmental boundary. This was what happened in the mechanical department when the question of shifting from steam to diesel came up. It could not be answered without executive participation. The problem of selling railroad service is now in a similar situation. By all means, let's develop greater sales skill—but let's not forget the primary importance of service and pricing. Without adequate attention to these factors, sales skill alone is not likely to accomplish satisfactory results.

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An investment in SERVOSAFE® HOT BOX DETECTIVE* equipment pays off fast. Get the complete facts on how your road can effectively handle "the biggest single deterrent to orderly train operation".

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How railroads can plan now to start saving 288 million dollars a year

THE railroads' savings in maintenance and operating costs will soar to an estimated \$288,000,000 a year—about \$144 per car—when all freight rolls on roller bearings. Is there a railroader anywhere who doesn't dream of such savings? And this is no dream! It's a logical first step in railroad improvement because the American railroads are no better than their rolling stock.

The railroads have been trying to speed this big switch to "Roller Freight"—and we've done our best to help. We've made "Roller Freight" more and more practical. Today, the extra cost of equipping a freight car with Timken® roller bearings is almost 50% less than it was just 10 years ago. At the same time, the cost of friction bearings and other things the railroads buy has been going way up (see chart right)—the price gap has been greatly narrowed.

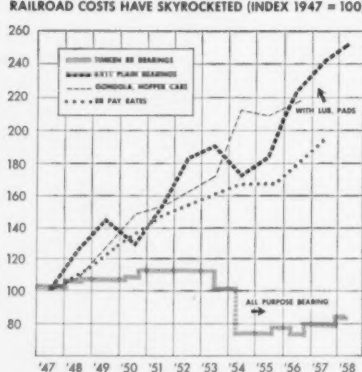
Today we're putting revolutionary production techniques to work to help cut our manufacturing cost. We've built a whole new manufacturing line in Columbus, Ohio just to produce freight car roller bearings—20,000 car sets every year. It's a \$7 million investment showing our faith in the future of the railroads. This new facility is designed to meet the demand of a regular, planned "Roller Freight" program. And, if railroads make the most of it, costs can be kept down.

Here's just one idea on how to make the most of this new plant.

Each railroad could plan to put a certain percentage of its freight cars on roller bearings every month

TIMKEN BEARING COSTS HAVE STAYED DOWN WHILE OTHER

RAILROAD COSTS HAVE SKYROCKETED (INDEX 1947 = 100)



SOURCES: AMERICAN RAILWAY CAR INSTITUTE • INDEX FROM AAR—
ICC STUDY — AAR INTERCHANGE RULES

or every year. By doing this, all the railroads would share in the benefits of conversion to roller bearings. And by putting these cars in interchange, they would share the benefits because they'd stand to *get back* through the interchange system about as many "Roller Freight" cars as they'd *put* in interchange. And a steady demand for roller bearings would automatically keep bearing costs down.

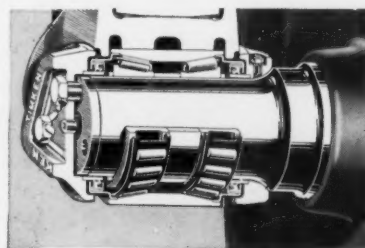
By making it practical to start right now buying roller bearings—the bearings that all the railroads *want* to use sooner or later anyway—the railroads will be off and running to a new Golden Age. Eventually, every single freight car in America will be roller-bearing-equipped.

These "Roller Freight" cars will attract thousands of new customers because you'll be able to *guarantee* faster, more dependable shipping. Your manpower will become more

productive. Your bearing maintenance and operating costs will be reduced to rock-bottom levels.

Savings can start right away. Each car put on Timken roller bearings will mean eight fewer potential hot boxes to worry about. Each car on Timken bearings will take only a fraction of the present time needed for terminal bearing inspections. And each car on the new Timken "AP" bearings produced in our new plant will go at least three years without adding lubricant. Ask your engineers and the people in your mechanical departments about the job "Roller Freight" can do for you.

And why not talk over your own ideas for planned roller bearing conversion with your railroad friends. Start the "Roller Freight" cars rolling now. Start switching to Timken tapered roller bearings for your freight cars. The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable: "TIMROSCO".



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TAPERED ROLLER BEARINGS

"Roller Freight" is the next great step in railroading